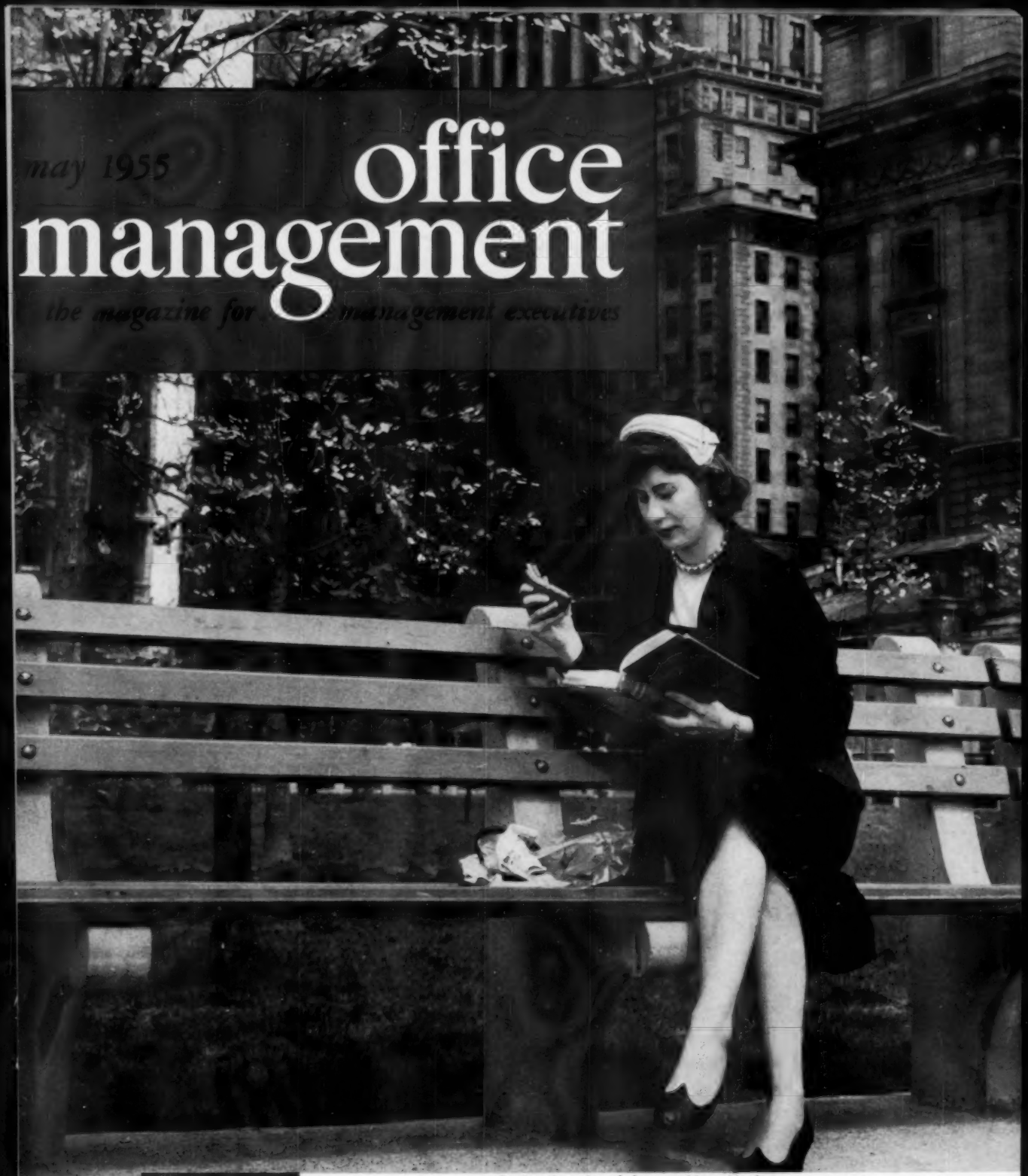
may 1955

office management

the magazine for management executives



Springtime lunch hour—New York

IN THIS ISSUE

• How to establish a clerical work measurement program

THE MOSAIC TILE COMPANY
Also developers of electrically conductive floor tile for safety and sanitation in hospital anesthetizing areas.
JOURNAL
STATEMENT

"National Accounting Machines save us $17,200 a year . . . repay their cost every 10 months."

—THE MOSAIC TILE COMPANY, Zanesville, Ohio
"Largest maker of real clay floor and wall tile."

"Until we installed National accounting machines, our accounting operation—linked with that of our six subsidiary companies — was necessarily a long and involved one.

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E. D. Mann
Treasurer and Comptroller
The Mosaic Tile Company

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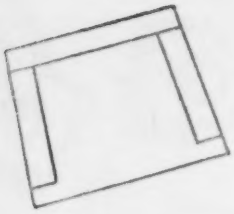
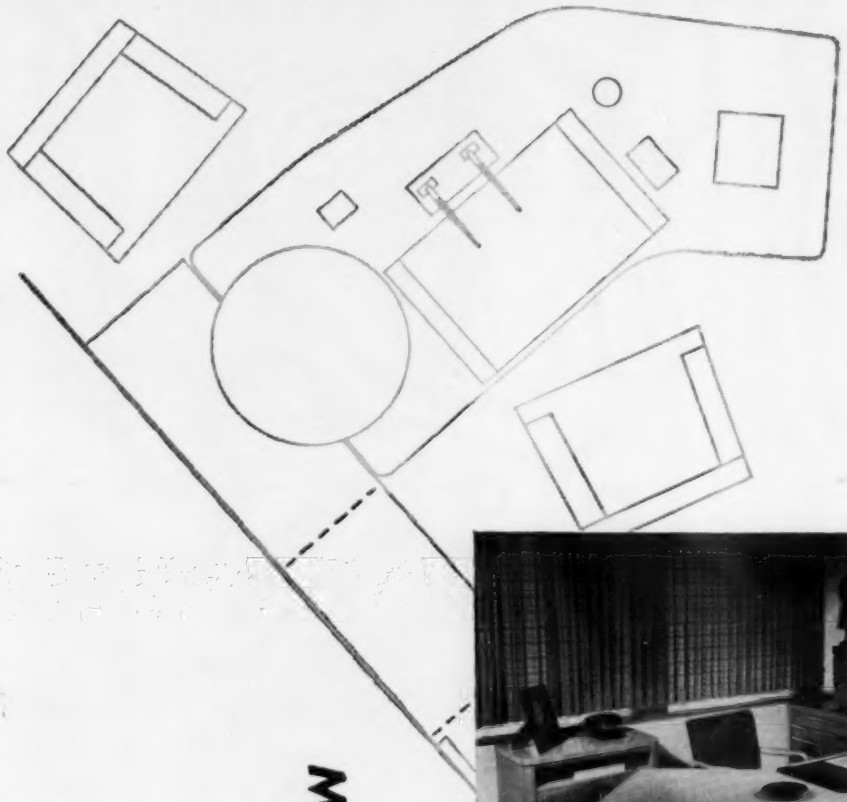


for increased executive efficiency



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office management

Office Methods, Equipment, Personnel, and Purchasing

Sponsor of the "Office of the Year" Awards

may, 1955

Vol. XVI No. 5

PARIS in the spring may be every American's *beau ideal*, but no one city, after all, has a monopoly on spring. Warm May days in New York, or San Francisco, or any other large American city graced by frequent parks have their own very special attraction — especially when lunch hour is at hand, there's a good book waiting to be read, and the work and worries of the office routine can be put away for a brief and pleasant hour.

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M. A. Geyer, President; Donald McAllister, Vice-President and General Manager; Thomas V. Murphy, Editor; Hugh Ward, Advertising Director; John M. Smythe, Midwest Manager; Robert M. Smith, Managing Editor; Robert Beeman, Walter A. Kleinschrod, Alvin M. Hattal, Marguerite Polyniak, George A. Tice, Associate Editors.

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Member of
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Published monthly by

GEYER-McALLISTER PUBLICATIONS

Andrew Geyer-McAllister, Inc.

Publishers since 1877

212 Fifth Ave., New York 10, MUrray Hill 9-4411

branch offices

Boston 10, 212 Summer St., Room 600, (Hancock 6-5390), Charles G. Kretschmar; *Chicago 1*, 228 North La Salle St. (State 2-2911), John M. Smythe, William Murray, Arthur Hutchison; *Los Angeles 5*, 3257 W. 6th St. (Dunkirk 7-6149), Chris Dunkle & Associates; *Editorial Representative:* J. Richard Iander; *San Francisco 5*, 681 Market St. (Douglas 2-2597), Alexander Rattray; *Dallas 19*, 3908 Lemmon Ave., (Lakeside 2322), Joe Sanders and Associates.

Subscription: $3 a year in United States and its possessions, Canada, Mexico, Cuba, Central and South America. Other countries $9 a year. Single copies 35¢.

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Secretaries week features educational programs

Countrywide educational programs for secretaries were a feature of National Secretaries Week, observed this year from April 24th through 30th under the co-sponsorship of the National Secretaries Association and the Office Equipment Manufacturers Institute.

Mrs. Lilyan Miller, NSA president, pointing out that the theme of this year's program was "Better Secretaries Mean Better Business," said that the week was intended to be educational and that it was "not intended to glamorize secretaries or be the occasion for an employer to present his secretary with an orchid."

Many of the more than 300 chapters of NSA conducted Secretarial Workshops. These programs, sponsored individually by the local chapters, featured prominent speakers and panels selected from the business, education, and secretarial fields. Most of the workshops were held in cooperation with local colleges or universities. Secretaries attending them were given "ideas, practical know-how, and a broader knowledge of the business world of which they are an important part."

In other activities backed by the NSA, members of the Association gave lectures to business school and high school students on various aspects of the secretary's job and on the qualifications secretaries should acquire in order to be successful.

The NSA announced also that its CPS (Certified Professional Secretaries) program is continuing to grow. The number of secretaries qualifying for this certification has now reached 582. Candidates, who must be at least 25 years of age, are required to pass 12-hour examinations on a wide field of subjects relating to secretarial and business work. The fourth annual examinations, given last year, qualified 222 secretaries as new members of this select group.

The Association has also announced that it will hold its annual convention in Chattanooga, Tenn., July 20-23. Headquarters will be Read House. Among the features of the program will be the crowning of the Secretary of the Year and a CPS dinner.

Mrs. Ivy Baker Priest, Treasurer of the United States, will deliver the keynote address. The convention theme will be, "The secret of success is constancy of purpose."

A revolutionary new

HIGH FIDELITY

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by COMPTOMETER

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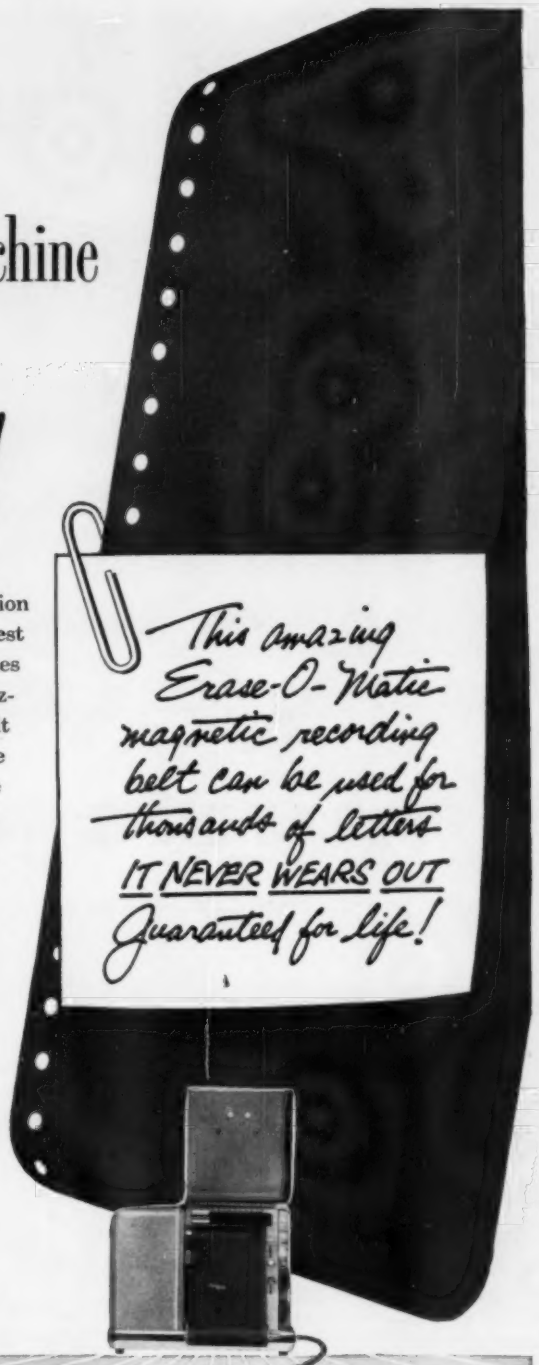
Comptometer announces a revolutionary new dictation machine that pays-for-itself as you enjoy years of the finest high fidelity, magnetic dictation. Now dictation becomes as easy and natural as talking to your secretary. The amazing lifetime guaranteed magnetic Erase-O-Matic belt can be used thousands of times over again. No expensive discs, cylinders or records to continually buy, ever. The letters you dictate are so error-free . . . so easy to understand, because of the high fidelity voice reproduction, it makes *any* typist a secretary. Here truly, is America's finest machine with savings that now bring dictation within the means of every business. Mail coupon for complete information on this compact electronic achievement by Comptometer.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Gentlemen: We are interested in the Comptometer Office Dictation-Transcription Machine with the Lifetime Guaranteed Erase-O-Matic Recording Belt. Without cost or obligation:

☐ Please send Complete Information ☐ Arrange for a Demonstration ☐ Arrange for a Free Office Trial

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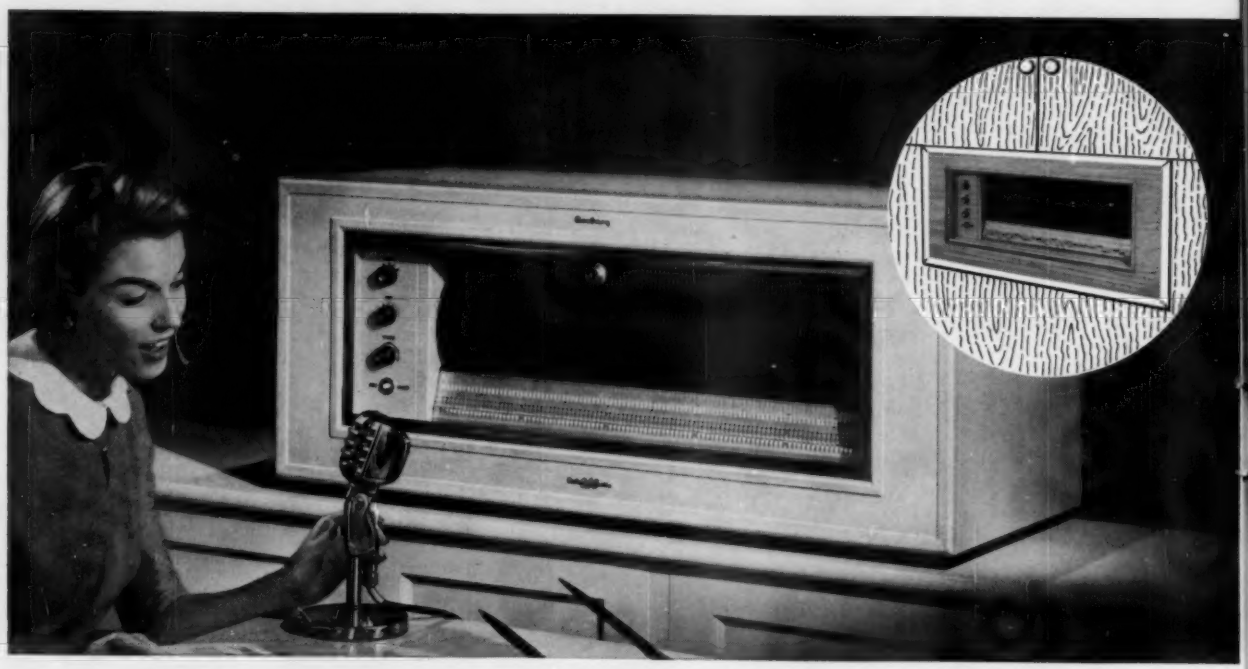


The Seeburg Library Unit. *Attractive limed oak cabinet.* **The Seeburg Custom Unit** *(inset) for built-in installations. Mounted on sturdy sliding metal tracks. Both units have high fidelity pre-amplifier and pickup.*

music will benefit

The benefits of music upon factory and office personnel gains greater recognition every day. Music combats the boredom of repetitive tasks... music reduces absenteeism and labor turnover . . . music builds morale . . . music increases office efficiency and factory production.

You can put the benefits of music to work easily and economically with Seeburg Background Music Service.

THE SEEBURG PLAN. Highlight of the plan is a LEASE-PURCHASE agreement covering all the equipment. Monthly payments apply toward eventual ownership of the entire sound system. The Seeburg Background Music Library, which includes a refresher service every 30 days, is available at a separate monthly rate.

THE SEEBURG BACKGROUND MUSIC SERVICE. The distinctive feature of this modern music service is the Seeburg Background Music Library. Every selection has been carefully arranged and scientifically programmed for work and atmosphere music.

The music is recorded "live" by outstanding orchestras in Hollywood, Munich and Vienna. It is mastered and pressed to exacting high fidelity standards by RCA-Victor on 45 RPM Extended Play Discs of pure virgin Vinylite (no filler). Frequency range is from 30 cycles (low frequency) to 15,000 cycles (high frequency) per second.

THE SEEBURG MUSIC SYSTEM. Nucleus of the system is the world-famous Seeburg Select-O-Matic mechanism . . . the most revolutionary development for the playing of recorded music since the invention of the phonograph. The Select-O-Matic is completely automatic —no attendants are required. However, the Select-O-Matic permits playing individual records if desired.

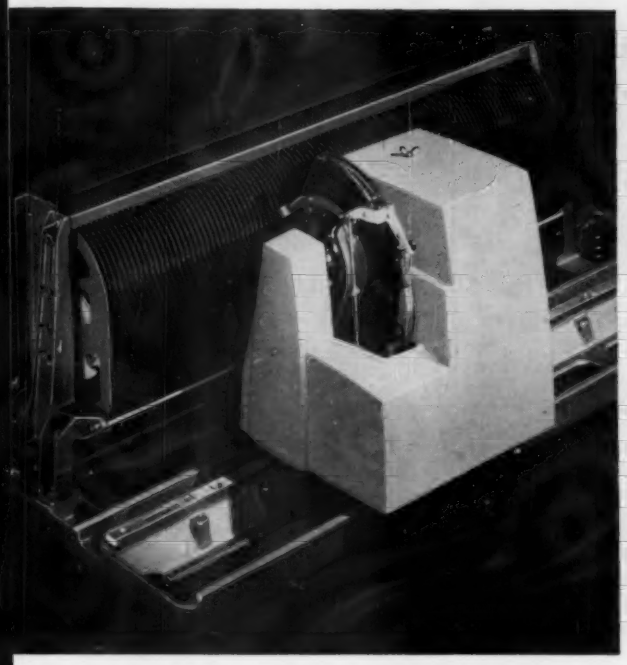
PAGING SERVICE. A complete, efficient, easy-to-use paging and public address system is also provided.

TRUE HIGH FIDELITY. The Seeburg Music System is high fidelity all the way including a high fidelity pre-amplifier, a high fidelity magnetic pick-up with genuine diamond styluses and specially designed Seeburg extended range remote speakers. So now, background music and high fidelity reproduction become one and the same thing.

WORK AND ATMOSPHERE

SEEBURG
Background Music Service

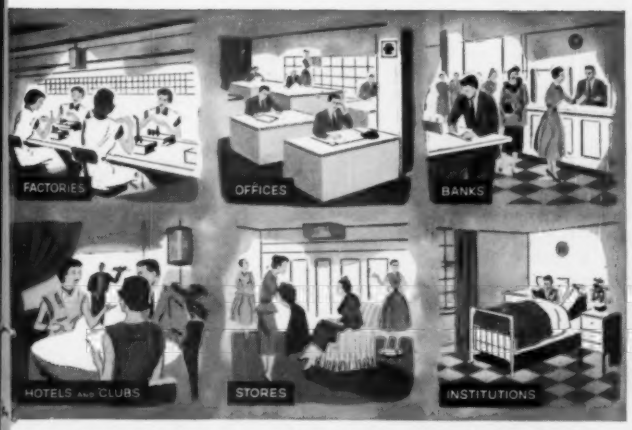
J. P. Seeburg Corporation, Chicago 22, Illinois



The Select-O-Matic Mechanism. *Heart of the Seeburg System. Completely automatic operation. Plays the records vertically.*

The Seeburg Background Music Library. *Mastered and pressed by RCA-Victor on Seeburg label. Monthly refresher service.*

your business



Factories, offices, banks, savings and loan associations, hotels, clubs, stores, institutions know the benefits of background music.

A Seeburg Console for your home. *Real selectivity. Full-spectrum high fidelity. Light Korina or rich mahogany cabinet.*

WRITE FOR INFORMATION. Learn how easily you can apply the benefits of music to your business. You'll find the Seeburg Plan is as unusual in concept as the Seeburg System . . . brilliant in performance.

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☐ Please send data on Seeburg Background Music Service.

☐ I'm interested in a Seeburg Select-O-Matic for my home.

Name .....Position.....

Company.....

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City.....Zone.....State.....

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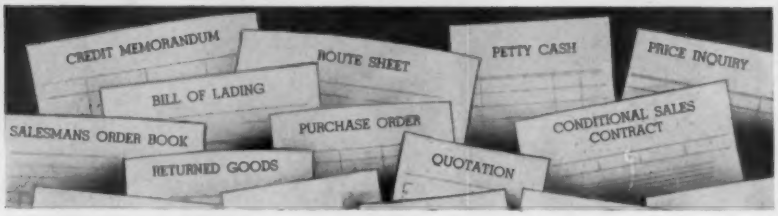

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How long has it been since *you've* looked over your present forms. Or have you just overlooked them, without connecting changing conditions at your company with the need for changed systems? A thorough analysis of your operation by a Baltimore Business Forms expert can pay unexpected dividends in the form of faster paper work, greater internal efficiency and speedier external communications and deliveries. The experience gained by Baltimore Business Forms in solving countless problems for over 60,000 of the nation's leading business houses can solve yours too. Give us a call or write us—today! There's a handy coupon printed below.

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University plans records and archives programs

The Second Institute on Records Management, which will be held in Washington under the sponsorship of The American University and the National Archives and Records Service, June 20 to July 1, will include lectures on the following subjects:

"The Problem of Paper Work in Modern Administration," "Administration of Records in an Organization," "Systems of Arrangement for Current Records," "Organization and Procedure for Current Records Management," "Evaluation and Scheduling of Records," "Mechanization in Records Work," "Organization and Procedure for Records Retirement," "Control of Records in the Records Center," and "Planning the Records Program."

Following the close of this program, the university, in cooperation with the National Archives and Records Service and the Maryland Hall of Records, will hold its First Institute on the Preservation and Administration of Archives: Advanced. This will be given from July 5th to 16th.

Lecture topics include: "Recent Archival Literature," "The National Archives and Records Service Since 1950," "Administration of State Archives, University Archives, and Manuscripts Depository," "The Archivist and Records Management," "The Theory of Records Classification," "Standards of Records Appraisal," "Finding Aid Work at the National Archives, Manuscripts Division of the Library of Congress, and the Maryland Hall of Records," "Cataloging," "Indexing," "Administration of a Records Center," "Administration of Microfilming Devices," "Administration of Motion Picture and Still Picture Holdings," "Editing and Publishing of Archival Material," "Reference Service," "European Archives in the Post-War Period," and "Developments in the Business Archives Field."

NCR expands plant

The National Cash Register Co., of Dayton, Ohio, has begun construction on a new three-story $2,000,000 manufacturing building and will shortly begin work on a six-story engineering and research building which will cost about $4,000,000. The two buildings are part of a $17,000,000 capital expenditures program for the current year, which is the largest such appropriation for one year in the company's 70-year history.

What's Your Desk Planning Problem?

"*Correlation*" can solve it!

Correlation is *far* more than a new, freshly styled family of fine desks. Correlation was painstakingly designed to actually *solve* most problems that create inefficiency in offices. Modern high strength plastics were called upon to reduce drawer noise to a whisper. New concepts in construction were developed to enable users to easily expand individual units—or combine two or more units to form space-saving work areas. And over 100 top and finish color combinations were made available for color styling *unlimited!*

Is it any wonder that business people everywhere are hailing Correlation as the year's most exciting innovation in office furniture? You will, too, when you see it at your *Steel Age* Dealer's!

Steel Age

"The Quality Choice of Modern Offices"

SPACE SAVING?

Correlation makes every square inch of floor space work! 30" top depth puts everything in easy reach for efficient use. Single pedestal units are perfect for tight spots!

SECRETARIAL EFFICIENCY?

Everything about the Correlation "*Secretarial*" is designed for better work. Exclusive Steel Age *Shelfomatic* typewriter shelf glides open at a touch with lightweight *or* heavy typewriters!

EFFICIENT WORK AREAS?

You can create dozens of efficient work stations like this from Correlation units. You get double value from each unit, because it's *correlated!*

OFFICE NOISE?

Desk drawer clatter is hushed to a whisper now with Steel Age's exclusive nylon rollers with Buna "N" rings—tough, long-wearing, self-lubricating!

COLOR STYLING?

Correlation gives you a rainbow of attractive finishes and desk top materials. You can create or match almost *any* color scheme now!

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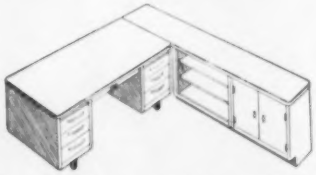
Branch Offices: Atlanta • Boston • Chicago • Dallas • Detroit • New York • Oakland • Philadelphia • Seattle

Group #3—Standard pedestal with 45" desk top with convenience drawer. 5589 table with panel end and 5599 cabinet attached.

Group #2—Standard pedestal with 45" desk top and convenience drawer, 5589 table attached.

Group #4—Two standard pedestals with 45" desk tops joined by 5589 table.



Group #8—5560 desk attached to 5588 top with panel end, 5590 bookcase, 5591 cupboard.

It's Easy to Assemble "*Correlation*" Work Stations like these in Any Office

The ease of creating tailored work stations from Correlation units is one of the outstanding features of this new *Steel Age* desk line. All units are *correlated* to enable you to utilize every square foot of your office space more efficiently.

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In addition, each individual Correlation desk unit can be expanded to meet changing functions and space needs, because tops, bases, pedestals and end panels are completely interchangeable. This feature often eliminates the need for a completely new investment in office furniture each time new or additional desk work areas are needed.

It's one more reason why an investment in *Steel Age* is an investment in the *future!* Get acquainted with Correlation today!

Steel Age

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Branch Offices: Atlanta • Boston • Chicago • Dallas • Detroit • New York • Oakland • Philadelphia • Seattle

Coming Events

British Industries Fair.
London and Birmingham, May 2-13.
Place: Olympia Hall, London, and Castle Bromwich, Birmingham. (Information: British Information Service, 30 Rockefeller Plaza, New York.)

AMA Insurance Conference.
New York, May 4-6.
Sponsor: American Management Association. Place: Hotel Statler.

Conference for Office Managers.
Milwaukee, May 17.
Sponsors: University of Wisconsin; Wisconsin Manufacturers Association. Place: Wisconsin Tower Building.

NOMA International Conference.
Toronto, May 22-26.
Sponsor: National Office Management Association. Place: Royal York Hotel and Mutual Arena. Conference includes office machinery and equipment exposition.

AMA General Management Conference.
New York, May 23-25.
Sponsor: American Management Association. Place: Roosevelt Hotel.

IASA Conference.
Chicago, May 23-25.
Sponsor: Insurance Accounting and Statistical Association. Place: Palmer House.

NACA Conference.
New York, June 19-23.
Sponsor: National Association of Cost Accountants. Place: Waldorf - Astoria Hotel.

Institute on Records Management.
Washington, June 20-July 1.
Sponsors: The American University; National Archives and Records Service. Place: The American University.

Wharton Refresher Conference on Work Simplification and Measurement.
Philadelphia, June 20-July 1.
Sponsor: Wharton School, University of Pennsylvania. Place: Dietrich Hall, Wharton School.

Institute on the Preservation and Administration of Archives: Advanced.
Washington, July 5-16.
Sponsors: The American University; National Archives and Records Service; Maryland Hall of Records. Place: The American University.

FH means Forget Hand-folding ...and save!

A lot of people in a lot of offices would be glad to forget hand-folding if they could. It's a boring chore. Wastes many hours of valuable company time.

A Pitney-Bowes model FH office Folding Machine will make everybody happier... and end the waste! The FH is small, portable, takes up little space—and *costs less* than a standard typewriter! Electrically driven, with semi-automatic feed, it will fold all your form letters, bulletins, statements, mail enclosures, etc.... far faster and more accurately. (Automatic feed optional at slight extra cost). The FH can make two folds at once, double-folding *up to 5,000 sheets per hour* —even folding sheets stapled together.

It makes eight different folds, handles sheets from 3x3 to 8½x14 in a wide range of paper weights and finishes. And it takes only a few seconds to set it for a job. Just move two little knobs to adjust it for the kind of fold you want. Easy as tuning your TV!

For a demonstration in your own office, call the Pitney-Bowes office listed in your 'phone book—or send the coupon for free illustrated booklet.

The FH costs less than a typewriter!

Fully automatic model FM folds up to 19,000 sheets per hour

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Name_____

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If there's Du Pont Ludox® in your wax

Glistening floors can still be *safe* floors—if the floor wax contains "Ludox" colloidal silica, Du Pont's anti-slip ingredient.

Tiny, transparent particles of "Ludox" impart a unique "snubbing" action to the wax film—retard the shifting of wax particles under foot pressure. The result—added traction and added *safety* underfoot!

Try a wax containing "Ludox." You'll see how *safe* beautiful floors can be.

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BETTER THINGS FOR BETTER LIVING
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For safety underfoot, specify floor wax made with

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Coming Events
(Continued)

National Employ the Physically Handicapped Week. October 2-8.
Sponsor: American Federation of the Physically Handicapped, 1370 National Press Bldg., Washington, D. C.

SPA International Systems Meeting. Detroit, October 10-12.
Sponsor: Systems and Procedures Association of America. Place: Sheraton Cadillac Hotel.

Rochester Business Show. Rochester, N. Y., October 20-22.
Sponsors: Rochester Chapter of the National Office Management Association; Rochester Chamber of Commerce. Place: Chamber of Commerce Bldg.

National Business Show. New York, October 24-28.
Sponsor: Office Executives Association of New York. Place: 69th and 71st Regiment Armories.

Cincinnati Business Show. Cincinnati, October 25-26.
Sponsor: Cincinnati Office and Business Equipment Show Committee, Inc. Place: Hotel Sheraton Gibson.

San Francisco Conference and Office Equipment Show. San Francisco, November 7-9.
Sponsor: San Francisco Chapter, National Office Management Association. Place: Sheraton Palace Hotel.

International Automation Exposition. Chicago, November 14-17.
Sponsor: The International Automation Exposition. Place: Navy Pier.

Air Conditioning and Refrigeration Exposition. Atlantic City, November 28-December 1.
Sponsor: Air-Conditioning and Refrigeration Institute.

Clary changes company name

The Clary Multiplier Corp., manufacturer of adding machines, cash registers, electronic data processing machines, and other equipment, has officially changed its name to Clary Corp., according to a recent announcement from President Hugh L. Clary.

With the editors—

HORIZONTAL office buildings in suburban areas seem to be intriguing our British cousins, too. A letter has come from an English concern asking us to suggest the names of American companies which have built the "long, low model" office buildings, so that English builders may be guided by their experience, and warned of any possible unforeseen difficulties in the adaptation from vertical to horizontal layout.

•

THERE'S no slackening apparent in the tempo of association meetings devoted to exploration of all the new developments in the office field, and their implications for management. The regular NOMA international conference is scheduled to be held in Toronto this month, while a simultaneous "top management" conference will be held by AMA in New York. These are both meetings of long standing, but other meetings are being scheduled by AMA to run during the summer months. More details about these later.

•

WE feel the "lead article" this month by Ralph W. Fairbanks, who serves as consultant on office automation for this magazine, is particularly valuable for its diagramming of a simple and inexpensive way to establish a work measurement program in the office—a project that has bewildered many companies in the past. Problems have arisen because of the varying nature of clerical work, and the difficulty in establishing standards valid for the particular conditions existing in a given office. One of the major values of the "Earned Hour" plan described in Mr. Fairbanks' article is that it makes particular note of these two handicaps, and compensates for each of them.

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AMONG the articles we hope to give you in early issues: a complete story on the planning the Sylvania Electric Corp. is doing in the construction of its new automatic data processing center in Camillus, N. Y. —which will be, as far as we know, the first example of a building planned and constructed solely and exclusively for use as a processing center. Also of course there will be complete reports on the important spring conferences mentioned earlier.

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THIS is what we hope to do in the editorial content of the magazine: give news, as fast and as fully as possible, of all the important new developments affecting office management, to present a certain proportion of specific and detailed articles on subjects of interest to office management, and to balance these with broad, general background articles relating new developments and trends in office management to the entire management picture. In addition to this, of course, our regular features on equipment and trends in the use of equipment.

Thomas V. Morsley
Editor

Robert M. Smith, *Managing Editor* — Robert Beeman, *Associate Editor*

Program on supervision announced by AMA

A new supervisory development program involving periodicals, research reports, and other services, has been announced by the American Management Association. The program will be handled by Supervisory Development Services, AMA, 300 W. 43rd St., New York.

The program is directed to line and staff executives rather than to foremen. It will undertake to provide the subscriber with a library on the development of supervisors and with news on current developments in the field. Subscribers will receive monthly issues of *Supervisory Development Today*, an eight-page bulletin, and of *Supervisory Development Sourcebook*, a manual.

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MANUFACTURERS OF THE WORLD'S FINEST OFFICE EQUIPMENT, SYSTEMS, FILING SUPPLIES AND VISIBLE RECORDS

editorial

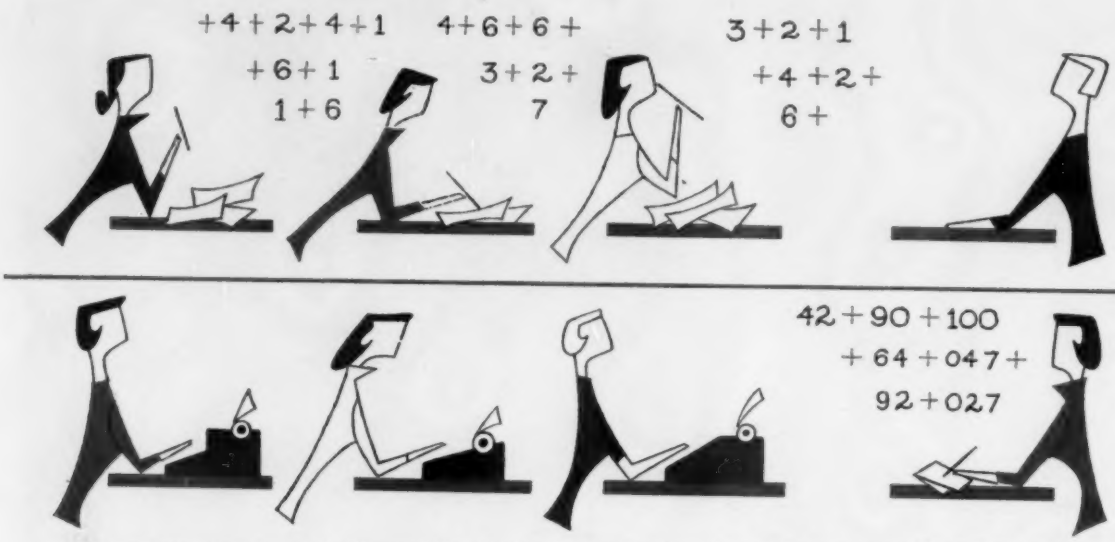
"Solidly grounded citizens"

AMERICAN BUSINESS does not ask, in the various forms of support it is now giving educational institutions, that colleges produce specialists but that they turn out "good and solidly grounded citizens," Philip D. Reed, chairman of the board, General Electric Co., told an educational conference last month. This viewpoint, aside from its sociological significance at a time when colleges and universities are increasingly dependent on private industry for financial assistance, has meaning for the business community as a whole.

We have taken pride in becoming a nation of specialists—and the need for specialists is growing still. But honesty must make us concede that too often early overemphasis on specialization has produced "experts" who lack the broad and adequate educational background which is the best foundation for intelligent specialization. Without that background, specialization alone often leads to a provincialism of viewpoint, a limitation of perspective that does not contribute to personal well-being, or the benefits of business as a whole.

We think that the trend which seems to be setting in against narrow overspecialization these days, paradoxically, will be accelerated by the technological advances coming in office and factory. The new machines invading our economy are not only changing office operations, and lifting human beings beyond much of the routine work they have done in the past; they are also breaking down the divisions within the company that have existed: strict, self-contained departments and procedures are giving way to an overall approach to the work of the company in all its phases.

Intelligent direction of this changeover is going to require imagination, as well as knowledge, and it is going to demand knowledge of a broad scope, which can judge and evaluate beyond the narrow confines of one field. The coming years will belong to the men and women, specialists though they may be, who can view their work, not as an entity, but in perspective to the needs and purposes of the entire company.



A distinctive feature of the "earned hour" plan is that workers do not have to record individual output

How to establish—

A clerical work measurement program

An absolute prerequisite for any kind of incentive pay plan, and valuable for controlling idle time, an effective clerical work measurement program can be instituted simply and economically—

by Ralph W. Fairbanks
Fairbanks Associates, Management Consultants, Greenwich, Conn.

ONE OF THE major areas in which offices have been handicapped in systematizing their work as compared with factories has lain in the field of establishing work standards, measuring work output, and raising that output through such devices as incentive pay systems.

The hesitation attending introduction of these regulating measures in the office is easy enough to understand. Office work does not lend itself as well to work measurement as the much more specialized and formalized routines of the factory; it is more difficult to get accurate standards, and there are a greater variety of non-routine jobs in the average clerical worker's day than there are in the factory worker's. We can accept these things as facts, but that is no reason why some of the advantages of work measurement cannot be given the office, even though we know in advance that we cannot achieve as precise a standard as might be possible in the factory. Half a loaf is better than none in raising production, and if we accept in advance the fact that we're never going to have perfection in a clerical work measurement system, we may be agreeably surprised at how much we can accomplish by it.

Furthermore, if we are ever to establish any kind of incentive pay system for clerical workers, an absolute prerequisite is the most accurate work measurement program possible.

Cuts idle time

But even if an incentive pay system is not visualized, work measurement makes sense from the management viewpoint because it operates—if well planned — to eliminate idle time of workers, and spotlights sub - standard groups in the clerical picture.

Too many management executives are quite uncertain as to just where to start in planning an office work measurement program, however, because of the factors cited: the varying jobs in each day and the lack of the type of conventional work standards available in the factory.

Both of these handicaps can be minimized by use of a work measurement plan that does not attempt to duplicate the basic platform of the factory program, but is oriented to the individual conditions applying in clerical work.

The basic principles of the plan which we have found most effective in installing office work measurement programs are these: hours spent on each

Office work does not lend itself as well to work measurement as the formalized routines of the factory, but if we accept the fact that we cannot achieve perfection in a clerical work measurement system, we will be agreeably surprised at how much we can accomplish—

job category are used as the measuring unit rather than dollars. Special non-countable operations which the worker is called on to perform, but which cannot be considered as among the worker's basic repetitive tasks, are recorded in terms of time. This time is then subtracted from the clerk's working time record so that the worker's record on countable tasks is not distorted. Total production records are kept for departments rather than for individuals, with individuals responsible only for keeping records of the time spent on different kinds of jobs.

Standards—the stumbling block in instituting so many work measurement programs in the past—are established within the individual office by recording average production by clearly-defined jobs within departments in that particular office over a fairly long period of time, and using that average as a basis.

Eight basic steps

Let's see how a program would work step by step, assuming that management decides to institute work measurement on the basis we have outlined:

1. The clerical departments within the office would be determined.
2. The basic, repetitive jobs within each department would be listed.
3. A basis of measure would be determined for each job.
4. The individual workers would report the hours worked on each job, but not their individual production on each job.
5. A "counting point" within the department or group would report the total units processed on each job.
6. From these two basic counts—worker's individual time on each job; departmental or group total output on each job, a standard would be established for each job.
7. The actual work measurement program would begin, with total departmental hours spent on each job recorded each week, as against the number of hours the department should have taken according to the standard to process the amount of work recorded for that week.
8. A running comparison of each department's performance with the performance of all other departments in the office would be kept to show management company weak spots.

These are the basic steps involved in installing the "Earned Hour" work measurement plan. Now let's see what is involved in each.

First the general clerical departments are identified within the office. A typical breakdown in the office of a manufacturing company thus might be: Accounts Receivable, Accounts Payable, Billing Cost, Inventory Control, Payroll, Production Control, Purchasing, etc.

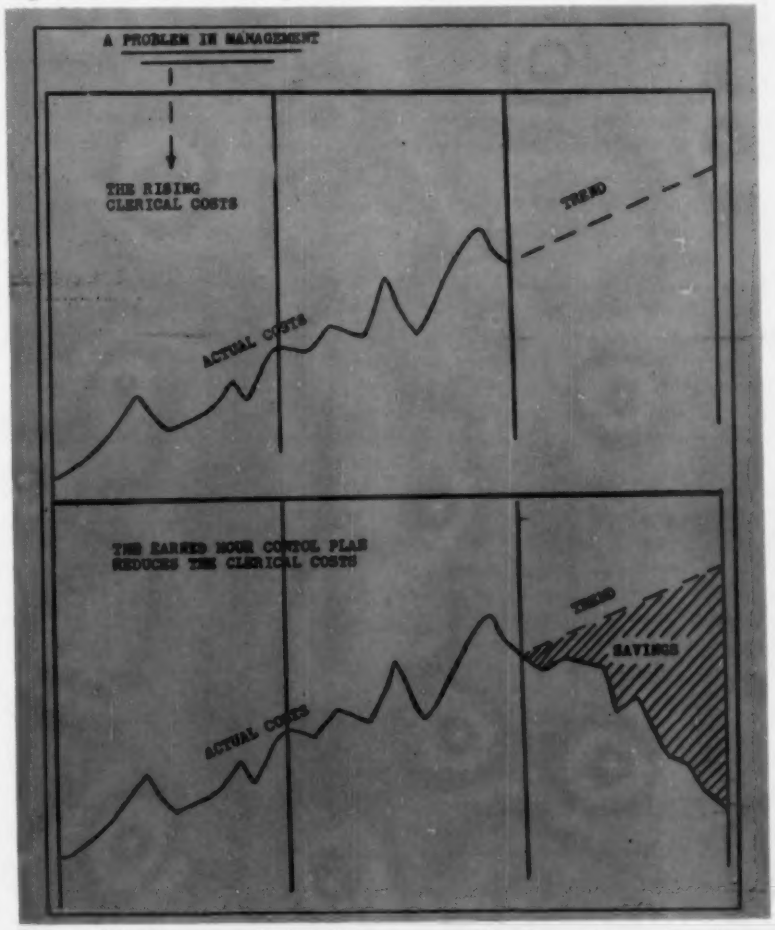
When the first breakdown into departments has been made, the work of each department should be analyzed to determine its major routine jobs. Some departments will handle a variety of more or less unrelated work; others will concentrate on performing a limited number of highly mechanical tasks. Accounting, at one extreme, handling refunds, payrolls, cash disbursements, accounts payable, social security reports, withholding certificates, war bonds, and reconciliation of bank checks, would offer a good example of a complex department, while another department in the same company might concentrate on relatively limited tasks like punching tabulating cards or embossing metal address plates.

The next step after distinguishing the jobs—and the degree of relationship between jobs—performed by each department is the determination of a basis for measuring the work performed on each job. The basis of measure will vary with each job performed, but in the jobs listed for the two departments cited above a logical breakdown would be as follows:

In the accounting department:

Job	Basis of measure
Refunds	No. of Refunds
Payroll	No. of Employees
Cash Disbursements	No. of Disbursements
Accounts Payable	No. of Accounts
Social Security Reports	No. of Reports
Withholding Certificates	No. of Certificates
Reconciling Checks	No. of Checks

On the other hand, the basis of measuring highly repetitive work may have to be slightly different. For example, in the other department cited, responsible for punching tabulating



In a period when general clerical costs are steadily increasing, a drop in actual clerical costs represents a greater potential savings than is apparent by simple comparison of present reduced costs against a previous high point

REPORT OF HOURS WORKED

NAME Mary Brown

DEPT. Order Marking WEEK June 30 19—

Jobs Worked On	Mon	Tue	Wed	Thu	Fri	Sat	Total
Paid Non Gift Orders	6	4	2	7	7		26
Paid Gift Orders		4		1			5
Unpaid Non Gift Orders	2		3		1		6
Unpaid Gift Orders							
Complex and Part Paid Orders			3				3
Total Hours							40

A typical individual time report for a week in which all duties fell in measurable classification

cards and embossing metal address plates, the numbers of each *different* kind of card to be punched might be the criterion in preparing tabulating cards since each kind of card may have varying numbers of columns to be punched.

The work needed to emboss address plates, on the other hand, is about the same for all plates, so that the total number of names to be embossed would represent the basis of measure for the job.

At this point, having broken down the varying types of jobs within each of the previously determined departments, we are ready to begin the actual establishment of standards. Each clerk within each department will begin keeping a simple record of her working time on a daily time sheet which is broken down in short time periods. The clerk, by merely marking with a single line on the sheet the time consumed on doing any one job (including the individual, non-repetitive jobs) as well as break time, presents a complete picture of the actual amount of time she has spent during that day on each of the jobs which are to be used eventually in creating job standards.

Note that the clerk is usually not involved in counting or recording the quantity of work she has performed on her daily time sheet. That is one of the salient features of this plan which contributes to its economy and ease of operation. She records merely the time consumed during the day for each of the various types of job she does in the day. At the end of the week, she breaks down on a weekly time report the time spent on each of the routine jobs for which standards are to be established.

Total recorded at counting point

The total output count for each job simultaneously is kept at a counting point established within the department. Here the total of the items completed on each job within the department is recorded on a weekly basis. Again no attempt is made to identify output by individual workers.

These two basic records—the individual worker's record of total time given each week to various types of jobs, and the counting point's record of the total number of items processed by all workers within the department or group on each type of job are correlated on a Job Record compiled each week for each of the listed routine jobs within the department. Thus, on a record sheet for each of the determined jobs within the department we record the total number of hours devoted to that particular kind of work by all the clerks in that department as against the total number of items completed in that type of work by all the clerks.

This ratio is the basis for the Standard Hours which are eventually to be set up. But since any group of human beings work at varying speeds, and at different levels of efficiency, it is wisest to take an average ratio over a long period of time. We usually specify weekly records over a six-month period before a final ratio is accepted as a standard.

Assuming that we have weekly totals of individual clerks' Reports of Hours and the weekly totals of Reports of Units Processed recorded for each job within a given department over a six-month period, we then total the units processed and total the number of hours devoted by all department clerks to that particular job within the six-month period. By di-

(*To page* 74)

Methods programs aren't restricted to large offices

Actually, it's pointed out, small offices can benefit more from methods improvement than large concerns; it's the small office that can't afford *not* to have a methods program—

by Robert C. Weisselberg
Manager, Methods and Procedures Department, General Fire and Casualty Co., New York

TODAY'S large, well-run company has found a weapon to fight rising costs and keener competition—a methods department. By constant study of improving ways of doing work, a methods department helps to reduce the company's expenses. With improved goods and services, it is easier for the firm to meet competition.

Executives of medium-sized and smaller companies are envious. They say, "Sure, we'd like a methods department, too. But we don't have the money to throw around on luxuries, like big business. Our company isn't big enough to afford a methods program."

The answer is simple: the smaller firm can benefit *more* from methods improvement. If it is to grow, it can't afford *not* to plan, to improve, to squeeze the most out of each dollar it spends. And the cost of this planning is surprisingly low compared with the potential savings.

The alert executive of a medium-sized company will ask: "How large must a firm be to afford a methods department?" "What can such a department *do*?" and "How do we go about getting one?"

When a company has between 200 and 300 employees, it can benefit by setting up a one-man methods unit. This statement has two strings attached: The man hired must be *capable* of producing results (even though these may be long-range); and the company must give the methods program the *backing* needed to make it work.

If the company has fewer than 200 employees, it can still improve its operations, by making methods improvement a part-time responsibility of the Office Manager or other capable supervisor.

For the purposes of this article, we'll assume one or more full-time employees can be hired.

Goals of a methods program

The first goal of a methods program should be to make the company's operations as effective and profitable as possible: to cut costs, and to improve goods and services, whenever the company will benefit in the long run.

The term "Methods Department," as used throughout this article, describes the unit having the staff function of planning and improving the company's structure and operations. Sometimes this function is divided among specialized groups, each doing methods work in a given area. Examples of these are office methods, manufacturing methods (industrial engineering), accounting systems, tabulating. We are concerned here mostly with company-wide planning, and paperwork procedures; but the basic principles of the methods function apply equally to all these specialized areas.

In the average company, there will be no need for a separate department to study the company's organization. The Methods Department can do this work. If the firm has been well organized, if its structure is sound, there need be no change in the organization. Even so, an organization chart should be prepared, if this has not yet been done. If the company's structure is jerry-built, then it must be set right before any attention can be given to procedures.

No methods man can operate in an ivory tower . . .

Before methods can be improved, the Methods Department must know how work is being done now. Present procedures can be sketched simply on flow charts, or described in detail in a procedures manual. A good manual takes years to write, and must be kept up-to-date; but it can be worth its weight in gold in employee instruction, coordination of work, and preparation for expansion or merger.

After these preliminary jobs are done, the Methods Department can concentrate on work simplification. This is a stuffy-sounding title for the pay-dirt job: constant, diligent, never-ending search for simpler ways of doing work.

Simplifying work requires the coordinated use of all the remaining methods functions: forms control, equipment standards, suggestion programs and special studies.

A forms control program requires constant study of the company's forms, with an eye to the methods used to prepare these forms. Eliminating unnecessary forms, and reducing the information required, can save untold hours of needless writing, checking, and error-correction. Proper design saves time for the people who will use the forms. Careful routing procedures speed the handling of the forms. And a study of the company's forms provides a clear picture of its paperwork.

Equipment standards provide a guide for all to use, explaining what equipment (from pencils to complex machinery) is best suited to the needs of the job. Equipment and forms cannot be divorced; simplification of an operation requires an understanding of both.

A suggestion program provides a steady flow of ideas for work improvement from the people who do the work. No methods man can operate in an ivory tower. He must solicit suggestions. The Methods Department, if it operates the suggestion program, should investigate suggestions promptly, answer the suggester, and recommend action.

Finally, the Methods Department should be able to make special studies for the use of management. Examples of these are evaluations of suggested improvement programs, analyses of proposed capital expenditures, studies of mechanization (or de-mechanization), planning rearrangement of working space, etc.

Creating the department

Let's assume you've decided that your company is ready to establish a methods department, and that you can afford to hire one or more full-time employees to do the job. If you want the new department to succeed, you must do four things:

1. Define the objectives of the department,
2. Hire competent personnel,
3. Support the department, and
4. See that the objectives are carried out.

Management should determine what a methods department can do in the company and what should be tackled first.

In getting the department into operation, it would be wise to concentrate on one activity at a time, until the department is well under way and fully staffed. An alert management usually has a pretty good idea what needs to be done first. A young growing company may need a procedures manual most of all, to help in establishing branches or in absorbing other businesses. An older company may have a greater need for other tasks, such as replacement of obsolete equipment and forms.

The company and the incoming methods manager may not always see eye to eye on objectives for the department. A methods man has a natural desire to prove his worth: he may prefer tasks with tangible dollar savings (such as mechanization of work) to more prosaic jobs, like writing a manual. This is especially so if management is not sympathetic to long-term programs with intangible savings. The new department may flounder, unless management has a clear idea of what the objectives shall be.

Hiring methods employees

A methods man should be chosen with care, whether he is to be a member of the staff or manager of the department. His personality and ability are of prime importance. Experience is secondary.

The personality needed is that of a combination salesman, missionary, diplomat, doctor. The ideal methods man must sell employees the idea of accepting a change—and most people resist change instinctively. He must have a missionary's zeal for improvement. It takes tact and diplomacy to implant ideas in others; and statesmanlike vision to credit others with originating the ideas. A bedside manner helps, to listen patiently to complaints, yet urge employees to submit worthwhile suggestions.

As to ability, the methods man must have an analytical mind, to identify a problem amid a maze of details. He must have imagination to visualize several solutions to the problem; detachment to withhold judgment until all facts are in; and common sense to recognize the best solution. He should possess enough drive to get things done, in a field where he alone knows how good a job he's doing. Finally, he must be able to express his ideas well—both orally and in writing.

Prior methods work; an all-round business knowledge; education in accounting or engineering; and an understanding of the English language—these are all helpful. Experience in dealing with people of varying educational and cultural backgrounds may be even more important. The good methods man should be able to pick the minds of others for what he lacks in technical know-how, just as a good lawyer relies on law books for court citations.

For the department manager, a man should be sought who has many of these qualifications, plus an ability to

organize and manage his department. He should require little supervision himself; his job is to relieve management of a staff responsibility, not to increase its burden.

In hiring the methods staff, the usual rule of thumb is one methods analyst per 300 employees. In smaller companies, this ratio may be as low as 1 to 200; in very large companies as high as 1 to 500.

It is best to hire the key man first. If the company is only large enough for a one-man department, your hiring problem ends there. If the department is to be larger, the manager should get his feet wet in company problems before employing anyone else. He should build his staff slowly, expanding its functions as he goes.

Success or failure of the methods program may depend upon the caliber of the men chosen to do the job.

Supporting the program

No methods program can succeed without the wholehearted backing of the company's top management. Employees quickly sense whether the methods program is here to stay, or whether the firm is merely experimenting with a novelty.

Management support can be demonstrated in many ways. The most important is the level at which the methods function is placed in the company's organization. The Methods Manager should report directly to a high policy-making officer, one having company-wide responsibilities.

The Methods Department needs adequate facilities: space, clerical assistance, files, telephone. Methods personnel should be encouraged to join professional societies (such as AMA, NOMA or SPA) to take school courses, and to subscribe to publications.

The methods staff should be free of operational duties. A company large enough to afford a full-time methods department should not expect the department's manager to double in brass as office manager or purchasing agent, for example. One of his duties would suffer, and the operational task would be likely to encroach upon the methods function.

Once a methods program is initiated, the department must be free to see it through. Nothing is more demoralizing than to have a long-range project cancelled half-way, without good reason. Management should be patient enough to expect even some years of work, before results can be seen from such projects as work simplification or a procedures manual.

When the Methods Department proposes changes, management should be prompt to answer. Accept, modify, postpone, or reject—it does not matter which, so long as the proposal does not die of inaction.

Management has an outstanding opportunity to back the department when a company-wide program is announced. A letter introducing a manual—or a suggestion system—or a cost reduction program (for example) can show that the firm stands 100 per cent behind the new program.

No methods department can get all the facts if denied access to information. The department must keep abreast of the company's overall plans and policies.

Management's support is often expected, to enforce compliance with a methods program. Nothing makes a methods department so unpopular as trying to enforce its own procedures. If there is an internal audit department, it may be the logical agency to see that prescribed procedures are followed. An ideal situation is when procedures and recommendations of the Methods Department are so well planned, that employees are eager to accept them. When this happens, the question of enforcement becomes purely academic.

Evaluating the department

After the Methods Department has been functioning a length of time, management will want to know if it's getting its money's worth.

In some companies a log is kept of the department's progress, with dollar savings estimated for each project undertaken. Such a log can be dangerous as well as informative. In order to justify its existence, the department may attempt to stress short-term projects with tangible savings. Estimates of savings may be greatly exaggerated.

In hiring the methods staff the usual rule of thumb is: one methods analyst per 300 employees. This ratio may go as low as one to 200 in smaller companies; as high as one to 500 in very large companies.

A better way is *not* to evaluate each methods project. If top officials of the company keep informed as to what the department is doing, they will know whether the methods program is effective. If necessary, progress of the department in carrying out its objectives can be reviewed periodically, say once or twice a year.

This, then, is your blueprint for setting up a methods department: Decide what the department can do, and what should be done first; hire capable personnel; give the department your full support; and see that it accomplishes what you expect.

If you can follow this blueprint, you'll have a successful methods department—one that really works.

. . . a suggestion program gives a steady flow of work improvement ideas

General office area before . . .

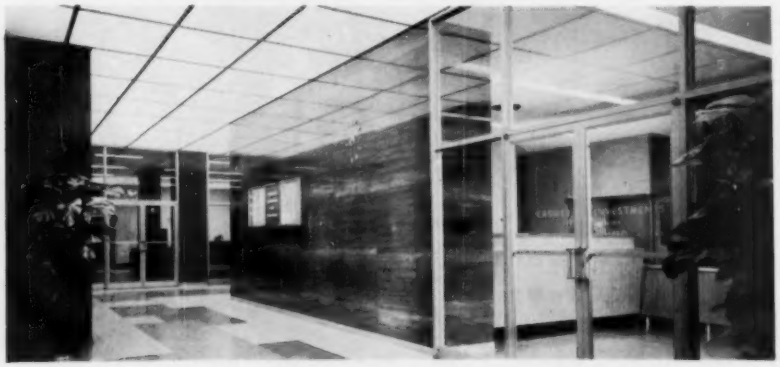
New efficiency in an old building

That's what General American Life Insurance achieved when it decided to remodel its old downtown offices rather than move to the outskirts of St. Louis—

WHEN A company occupying an entire building finds itself faced with a problem of obsolete office space, which is best—to remodel the building or to construct an entirely new headquarters?

The General American Life Insurance Co., of St. Louis faced exactly that situation recently. It occupied a twelve-story white terra cotta building in downtown St. Louis that had been constructed in 1914. The building, like so many of its counterparts of that era, had been constructed as a shell; interior floors were simply so much empty space to hold machines, equipment and workers. Floors were unfinished; walls and ceilings were untreated plaster.

Remodeling was a discouraging prospect, because in addition to these primary inadequacies as the home office of a large and growing insurance company, the St. Louis building suffered other defects of old age. The entire electric system, built to carry a 1914 burden, was totally inadequate to the needs of the 1950's, and the scarcity of outlets made many of the floors a tangle of wires and lines leading from a few wall outlets to desks scattered throughout the wide work areas. Heating facilities consisted of cast iron radiators;



A 1955 lobby on a . . .

. . . 1914 base

. . . and after remodeling

ventilation was poor. Elevators were not only outdated; they were felt to be inadequate for the number of personnel working in the building.

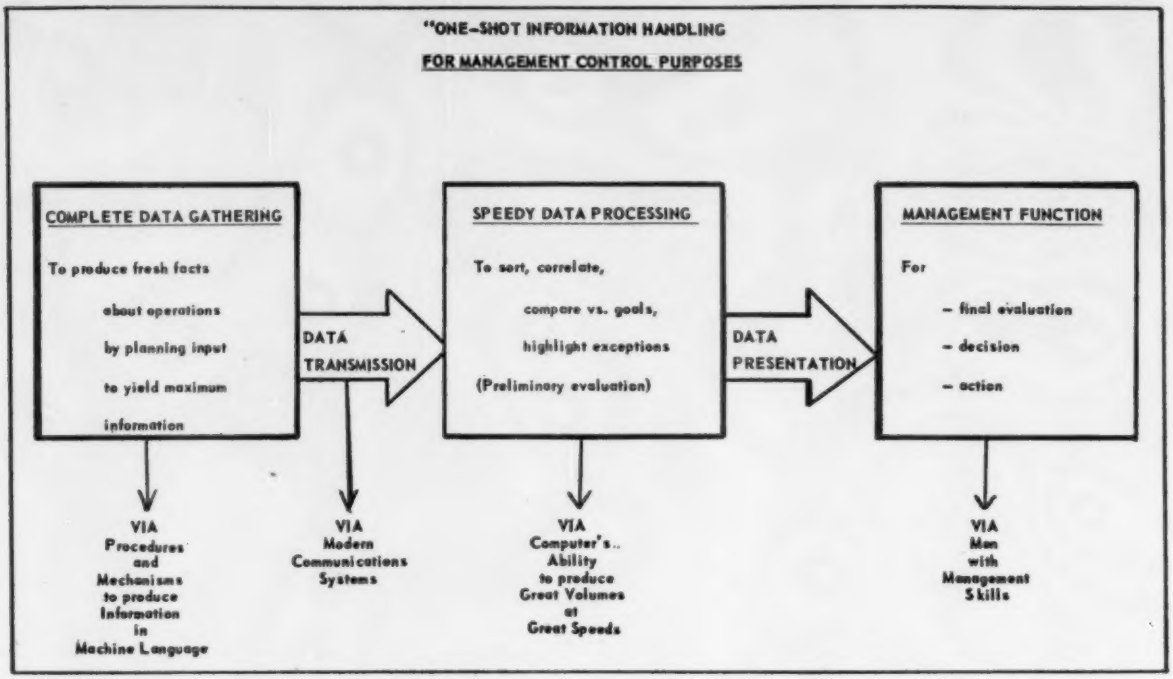
But there were certain advantages inherent in the old building, too. It was in downtown St. Louis, and in a section which promised to continue improving in importance.

A new building would have to be constructed well out of the downtown area.

Conversion costs were carefully estimated, and the decision was made to remodel rather than build.

(*To page* 74)

Corridors (above) and division reception areas (below) maintain sleek, modern note



Decentralized management not threatened by data processors, AMA told

Research that preceded computer installation by C. and O. outlined; implications for stronger management control discussed at major New York meeting

This is the concluding part of the report which began in the April issue of Office Management on the first of an annual series of AMA conferences on electronics, held in New York February 28-March 2.

The second C. & O. speaker, E. L. Morrison, Jr., Superintendent of Freight Transportation, discussing "Communications as an Element in an Integrated Data Information Handling System," outlined the complexity of applying a centralized data processing system to cover a railroad's scattered installations, rolling stock, and freight movements.

The C. & O. computer team thus was faced immediately, when it started to outline a communications system that could make the "one-shot" concept a reality, with the problem of where to start, he said. It was decided to build the system at first around the one document that had the greatest application throughout the entire railroad organization—the Freight Revenue Waybill.

The Freight Revenue Waybill, according to Mr. Morrison, contains all the vital information regarding each freight shipment handled by a railroad. Therefore any communications system which could both record all the contents of the waybill, and also report the document's progress from one point to another (the waybill accompanies the shipment it describes) would tie together information problems dealing with traffic handled, since the waybill's movements also describe the physical movements of the freight car carrying the shipment covered in the waybill. (See "Automation in the Office," March *Office Management*).

The solution arrived at was a teletypewriter network based on a common language code and special code symbols to act as control signals. These control signals "tell" various machines how to handle the information coming in on the perforated tape created by the sending teletypewriter. Thus, one symbol may identify a transmission as containing information about an empty car, another about a loaded car. Others refer to various types of traffic.

"Such symbols may be used to control the selective extraction and reproduction of perforated tape information and typewritten lists dealing with one or more types of cars or traffic," Morrison explained. "Other uses may include the control of the functioning of a teletypewriter or of a perforated tape-to-punch card converter with respect to such things as tab stopping, paper or card feed, carriage return or card ejection, deletion of information to follow, etc."

Training methods outlined

The company's method of preparing clerks at all the scattered installations which had to be pulled into this integrated data processing system was to send out a training group, composed of men "rich in yard experience and with salesmanlike personalities" to train the clerks on the job. The training group also assisted in the changeover at each installation as it took place, thus allowing the railroad to function without

major interruptions during the conversion period, Morrison reported.

"The people were trained to make the proper succession of key strikes to start the information down the data processing trail," he reported. "The one keyboard operation puts these data into machine language and thereafter it is handled by machines — for the movement of the car, for the necessary accounting and bookkeeping, and finally, it will be used by the computer for the preparation of statistical data of such refinement and complexity that it would not be attempted even in the most refined punch card processing system."

Computer use foreseen

The entire communications network was developed to be consistent with end use by a computer, Morrison declared.

"The computer can produce, much more quickly and economically than existing methods, many of our current operating reports for management. These reports, by and large, were developed as being the most refined tools that could be produced under a completely manual—and in some cases a punch card—application," he said. "But they lack the sophistication which appears necessary for modern management in a progressive industry. We look forward to computer outputs contributing to a more informed management judgment, in a greater variety of areas, and at an earlier date after the fact than has ever previously been possible," he said.

"Economic Appraisal of the Project" was the subject covered by the third C. & O. speaker, A. F. Dell Isola, Research Assistant-Vice President, Finance. Discussing the financial considerations that preceded computer installation, he said C. & O. had not bothered to run test applications on a computer to prove that its problems could be handled by the electronic data processor; the company felt that that had already been proved by other businesses with similar problems. Moreover, as the study progressed, Dell Isola reported, the original question, of whether or not a computer would pay was also abandoned, because it became perfectly obvious that a computer could be used in so many ways that it could not help paying.

The significant question that remained, according to the speaker, was where did the breakeven point come? Assuming that a computer would definitely prove economical when it had enough work to do, at what point was the company justified in getting a computer?

"Our job, as we saw it," he said, "was to determine how much we needed to incorporate in an initial computer operation so that we wouldn't lose money having a computer on the premises while readying other problems for computer application."

The accounting area was chosen as a starting place to determine the minimum breakeven point at which computer operations would begin to save money, the speaker declared, and today three fields within accounting are programmed for computer processing: payroll accounting, freight revenues accounting, and property accounting.

Accounting was chosen as the initial study area, he said, because it was the area in which the greatest work had already been done in streamlining paperwork and clerical effort, and was also the area in which the company had had the greatest experience in analyzing clerical processes.

This is not inconsistent with the overall picture of company operations and projected total conversion which is the basis of the "one-shot" process, the speaker pointed out, because the overall company study and integration of company objectives which had preceded intensive study of a computer application in the accounting field made it possible to project any proposed applications not only against the accounting background, but against the larger background of overlapping information requirements between accounting and other departments.

"At the very least, we can set the stage so that all other applications will fall into place when their turn comes," he said.

Two principal standards for criteria for the economic study were established before it began, he said—that approximations of dollar benefits would be satisfactory, and that estimates of dollar benefits from computer use should only be considered against present costs, rather than against a hypothetical "next best" method.

Precise savings unpredictable

The first criterion was adopted because no projection of savings can be completely accurate down to the last decimal point, the speaker said, and therefore trying to establish precise figures in advance is a process that serves no purpose.

The second criterion, he explained, was adopted because the company felt that a hypothetical next best system would still involve long and expensive methods research, large conversion costs, and then might easily prove completely inadequate to expanded company requirements within a matter of

L. L. van Oosten, Methods Research Director, Allstate Insurance Co., discussed characteristics of the ElectroData system at Wednesday morning session

New machinery and equipment exhibits continued to draw spectators . . .

a few years. Therefore the standard of comparison between computer costs and actual present costs was established.

"In summary, then, the philosophy of our approach to appraising the economic payoff of the initial computer applications in the accounting area dictated that we make a quick study yielding approximate estimates, and that these estimates measure the cost difference between computer methods of operation and present methods," he declared.

Two alternative methods of comparing present costs with potential costs under a computer application were open to the C. & O. study team, Dell Isola explained. The new system could be projected in great detail, leading to fairly precise estimates of machine costs. This does not give an accurate estimate of what type of organization will be needed under the new system, or how many jobs and what type of jobs it will require to man it, he said, and much more intensive research after the first detailed projection has been made is necessary before those costs can be estimated too.

Therefore, C. & O. adopted the second alternative, Dell Isola said, approaching the problem from the other end.

"Rather than attempting within a short time to build a new system, we concentrated on analyzing—or breaking down—our present system. We asked ourselves what impact the employment of computer technology might have on the organizations now doing our freight revenues, payroll, and property accounting. In brief, we examined this organization in terms of specific functions, and jobs performed and asked with respect to each segment whether the introduction of a computer and its special capabilities could possibly affect it."

Elimination simplified research

At the very beginning, some research simplification was possible, Dell Isola said, because of recognition that an overall computer system would automatically eliminate certain duplication and overlapping of work necessitated under the current system because of time limitations. Also, some clerical functions were being performed manually because of the limitations of conventional office machines, and these could be eliminated in a computer installation.

Further simplification was possible because of recognition that any areas in accounting already mechanized to a degree could easily be reproduced completely on a computer, he declared.

"The really new dimension which had been introduced to the situation was the ability of the computer for the first time to make possible, in greater or lesser degree, the mechanization of functions and operations which could not be mechanized before. The crux of the problem, then, was to identify these," Dell Isola said.

The identification was carried out by a functional analysis of the manual clerical processes currently employed by the C. & O. Each of the separate manual functions identified was then analyzed in terms of whether or not it could be mechanized at all, and also whether it could be mechanized with current equipment. This referred only to the physical possibility of mechanizing the function, and not to its economic desirability.

Finally all functions were grouped under three main categories:

1. Possible to mechanize with current equipment, and economical to do so.

2. Possible to mechanize with current equipment, but uneconomical to do so.

3. Impossible to mechanize with present equipment.

Then all functions in categories 2

and 3 were projected against a possible computer installation to determine whether the computer would change the economic picture in category 2, the feasibility picture in category 3.

With this basic information, the C. & O. felt it had a fairly accurate overall picture of the cost picture of a computer installation, Dell Isola said.

"It needs to be stressed," he continued, "that we do not regard the results of this study as a blueprint which tells us what functions will be mechanized via computer, what positions will be affected, and exactly how. We regard it instead as a rough road map which tells us what we will probably find in this largely unexplored area, including some very rough specifications of dimensions."

Control implications stressed

The final speaker of the C. & O. panel, William Bamert, Assistant to the Vice President-Finance, discussing the implications of the computer installation for "Strengthened Management Control," pointed out that, since information handling is a significant part of the validity of management control, improving the elements of the information handling system automatically strengthens management control.

In describing the C. & O. conception of an information handling system "aimed at management control of a business enterprise," Bamert discussed five main elements, and the improvements which the C. & O. feels have been brought through the "one-shot" concept:

1. Data gathering, or input, which constantly provides fresh information about operations. Under the "one-shot" concept, complete data gathering is possible because multiple use spreads the cost of single input. Thus the company moves from dependence on a series of pools of information, none of which is complete for the entire company, to reliance on one single reservoir of information covering all incoming data for the entire company.

2. Data transmission. The modern communications system demanded by the "one-shot" concept brings with it company benefits in terms of increased speed and lowered costs in moving data from the point of origin to the processing center.

3. Data processing, with the improvements possible through use of a computer in a central installation, to handle more complex problems than has previously been possible, at much greater speed and in much higher volume than has ever been possible.

4. Data presentation. Here the C. & O. feels the "one-shot" system means automatic improvement because of the improvements already achieved in the first three elements. Thus, information will be better digested for management use because of the analytical capabilities of the computer which processes it; information will come to management more quickly because its whole transmission and processing are handled much faster under the new system than they could be under the old; and more varied information is available to management because of a more complete data gathering process at the source, and transmission of all data to a central point where it is digested by the computer.

5. The fifth element was defined by the speaker as the management function of final evaluation of the information presented to it, decision based on the facts, and action leading to maintaining or increasing company strength.

"Please note," the speaker pointed out, "that up to this fifth element the information handling system has not made a single management decision in the accepted sense of the word. It has made only preliminary evaluations, and these only in accordance with rules prescribed by managers. Neither computers nor robots will take the place of experienced men with management skills in this process of final evaluation of facts, decision, and action."

The speaker then went on to outline a series of hypothetical problems which today are difficult for management to control, with illustrations of possible solutions under the "one-shot" system. These included inventory control, traffic sales control, and market research.

He also discussed the implications of the "one-shot" philosophy for "management by exception," and pointed out that the inevitable effect of the realistic evaluation of procedures, would be a more realistic picture of goals or standards by which the company might judge its results. (*To page* 34)

. . . throughout the three days of the conference, while . . .

. . . demonstrations always were assured of a full house.

Speakers announced for NOMA conference opening in Toronto May 22

Richard D. Jones will be keynoter; new international officers to be elected

THE Rev. Richard D. Jones, Canadian Council of Christians and Jews, Toronto, will serve as the keynote speaker at the 36th International Conference of the National Office Management Association, which opens in Toronto, Ontario, on the 22nd of this month.

The keynote speaker will discuss the conference theme, "Controlling Office Costs," from the human relations and psychological points of view.

As in former years, an office equipment exposition will be held concurrently with the four-day conference, which will run through Wednesday, May 25. The display of office machines and supplies, which will be held in Toronto's Mutual Arena, will stay open for one additional day beyond the close of the conference on May 25.

A new slate of international officers will also be elected at this year's conference, which will be held in the Royal York Hotel.

Although technical sessons will not begin until Monday, May 23, the conference will officially open on Sunday with the Chapter Officers' Council in the afternoon, and the Chapter Presidents' Dinner in the evening. A tea for NOMA women members and wives will also be held on Sunday afternoon.

C. M. Surdyk, of the Ford Motor Co., Dearborn, Mich., will be the first speaker at the afternoon session on Monday following the keynote address and election of officers in the morning. Discussing "Budget Development," Surdyk will outline methods of preparing concise budget performance reports, and successful presentation of budgets for top management approval.

The second Monday afternoon speaker, Paul Holly, of Aldens, Inc., Chicago, in his talk on "Work Measurement" will discuss selection of easily measurable work units, and comparison of quality of work in relation to quantity.

Speakers Edward Wallace . . .

. . . and V. K. Rowland

"Methods Improvement" will be the subject of the first speaker on Tuesday, J. R. Crowley, of the Hotpoint Co., Chicago, Ill. He will discuss the objectives of a methods improvement program, assignment of responsibility for the methods improvement job, and how to estimate potential savings from methods improvement.

Taking as his starting point the office manager's responsibility to select potential leaders and train them, the second speaker on Tuesday morning, V. K. Rowland, of the Detroit Edison Co., Detroit, will cover "Executive Development." Assignment of responsibility to subordinates, and the merits of a formal versus an informal leadership training program will be discussed.

Tuesday afternoon attendance will be divided between two concurrent sessions, one on "Duplicating Equipment," and the other on "Electronic Data Processing." R. H. Allen, of Moore Business Forms, Ltd., Toronto, will outline recent developments in various methods of duplicating and reproducing office forms and papers, and will review savings to be made with various different kinds of duplicating equipment. Edward L. Wallace, of Harvard University, will stress the potential applications of electronic data processing to medium-sized offices through use of individual electronic data processor components, as well as review the implications of full-scale conversion to electronics in offices.

Speakers Robert L. Peterson . . .

. . . and J. R. Crowley

Banquet on Tuesday

The annual NOMA banquet will be held on Tuesday evening, at which time NOMA's two top awards—the Leffingwell Medal and the Fellowship Award will be presented to this year's winners. The Leffingwell Medal is given annually to "that office executive who has made outstanding technical contributions in the field of office management," and the Fellowship Award to "an outstanding individual who has advanced through the work of the office to a position of top management responsibility."

The final technical session of the conference, on Wednesday morning, May 25, will see W. Davis Reid, Institute of Supervisory and Personnel Development, Toronto, and Robert L. Peterson, University of Illinois, leading a discussion on "Incentives." The two speakers will analyze the benefits of both financial and psychological incentive plans.

The closing ceremony of the conference will be the annual luncheon on Wednesday.

Fee for all sessions of the conference including Chapter Presidents' Dinner, Annual Banquet, and Annual Luncheon is $30 for NOMA members, $38.50 for non-members.

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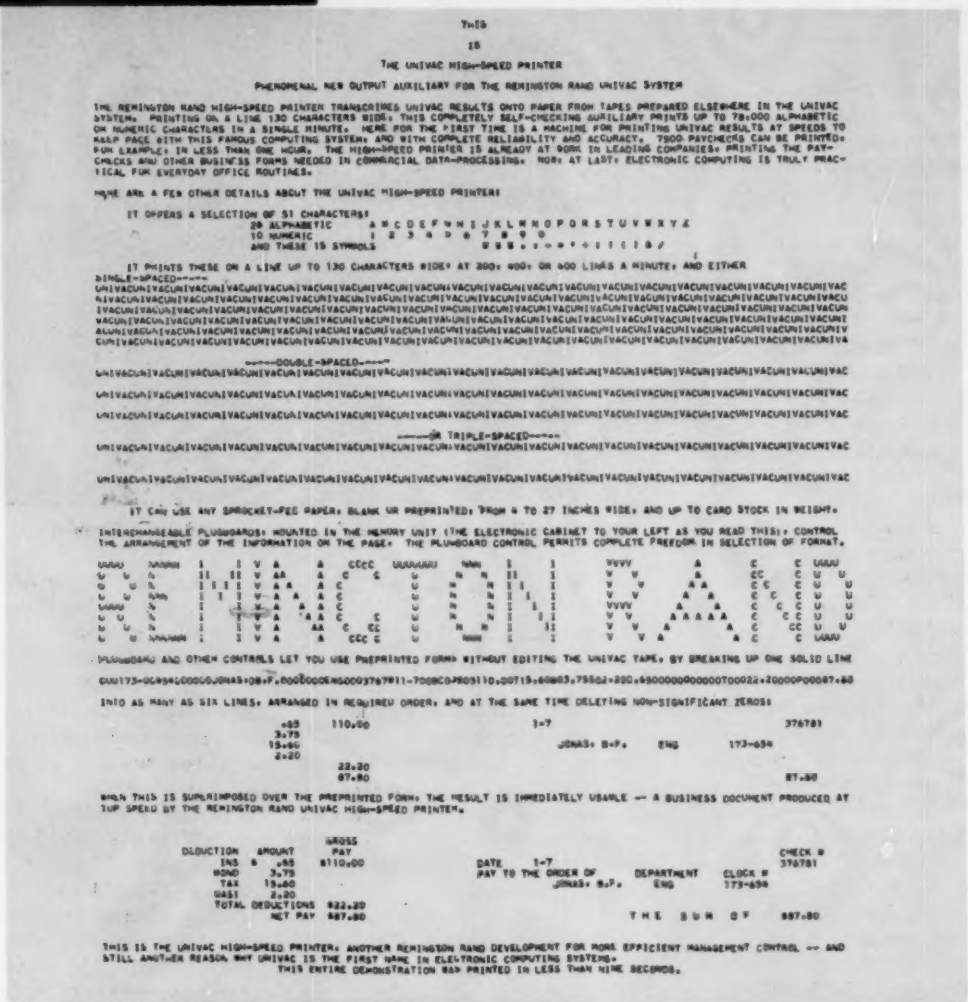

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Goodrich plans new electronic inventory control system; IBM, Rem Rand show new calculators

New electronic procedure for credit card accounting developed; Sylvania to set up private wire system

B. F. GOODRICH plans to install what is described as the "first electronic inventory control system in the rubber industry" in its plant at Watertown, Mass., this year, and to have the system in full operation by January, 1956, it was announced last month.

Heart of the new system is a magnetic storage drum which holds, and can make available for instantaneous visual and printed reference, thousands of style and size items. The drum will also record the quantities of each style and size committed for future shipments.

The Teleregister Corp., with which Goodrich has signed a contract to install and maintain the system, describes its Magnetronic Inventory System as similar in principle to the Magnetronic Reservisors used by airlines to speed handling of passenger reservations.

The new system to be used at Goodrich, will, according to Teleregister, "produce on demand a tabular description of the numerical difference between quantities on hand and committed orders for any and all items stocked by the company." It will also, the manufacturers assert, create permanent records of individual transactions which can be used in the preparation of punched card summaries for accounting or forecasting.

Two basic input devices are used to feed information into the storage drum. One is a keyset which is rather similar in appearance to a small adding machine. Numerical data can be fed into the system via this unit.

The other input device is a standard Flexowriter, capable of producing copy from manual operation, or under the coded instructions of a punched paper tape, and also of creating a new tape embodying all the information, both manual and coded, entered on the page created by the machine.

In practice, the keyset will be used at the warehouse to introduce data on inventory additions into the system. The Flexowriter will be used to record data on orders received.

From these incoming orders, a supervisor will select daily those scheduled for release, distinguishing between those which can be completely filled from existing inventory (automatic release), and those where there is a question of stock availability (selective release).

In the first instance—automatic release—a clerk will merely have to insert the punched tape from the Flexowriter containing all information on a given new order into a tape reader, which feeds subtraction signals into the system. If at any point the subtraction results in exhaustion of the inventory, the system will stop functioning, and a warning light designating the particular item which has been exhausted will signal the shortage.

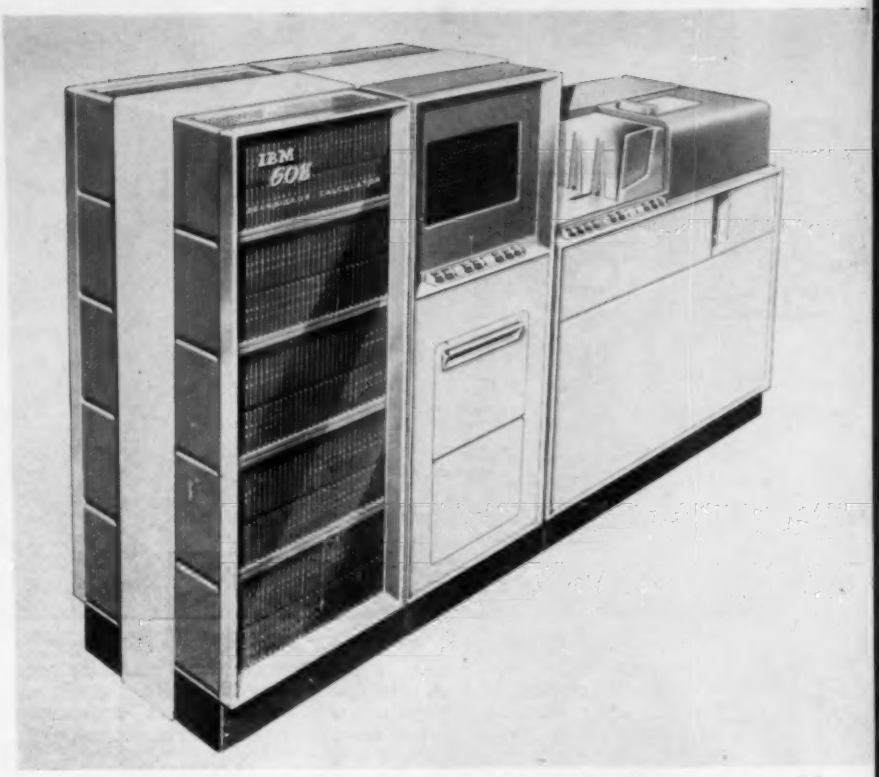
When the supervisor suspects beforehand that available inventory may not cover any one order, and earmarks the order for the "selective release" procedure, a clerk, using the Flexowriter, will direct the system to "read out" a complete size range display of inventory on an inventory control board. If availability is restricted according to the information flashed on the board, the clerk will select the particular items on the order which can be safely released to the warehouse for shipment.

"Transistorized" computer announced

International Business Machines announced last month that it has developed a "transistorized" computer for commercial installation, and will begin making deliveries on the new model early in 1956.

The new machine, model 608, has several times the storage capacity and calculating speed of the experimental model transistorized computer demonstrated by IBM last October, the company said.

Transistors — small germanium devices no larger than a paper clip—replace vacuum tubes in the new calculator, and magnetic cores make up the machine's internal "memory." Advantages of the use of these small devices are, according to IBM, that computer unit size can be reduced by one-half, and its power requirements can be reduced 90 per cent. The replacement of tubes by transistors reduces heat in the same proportion by which power input is cut.



New IBM computer, using transistors, is much smaller than previous models

Use of transistors also makes possible assembly of modular components that can be used as "building blocks" in future machines, IBM said, simplifying and speeding the production of the computer.

The manufacturer says that the new calculator can handle problems of greater size and complexity than those now handled by IBM types 604 and 607 calculators. Logical applications of the new processors include payroll preparation, actuarial analysis, and inventory accounting, the company declared.

A calculating punch unit is used for both input and output in the new calculator.

Univac II doubles former speed

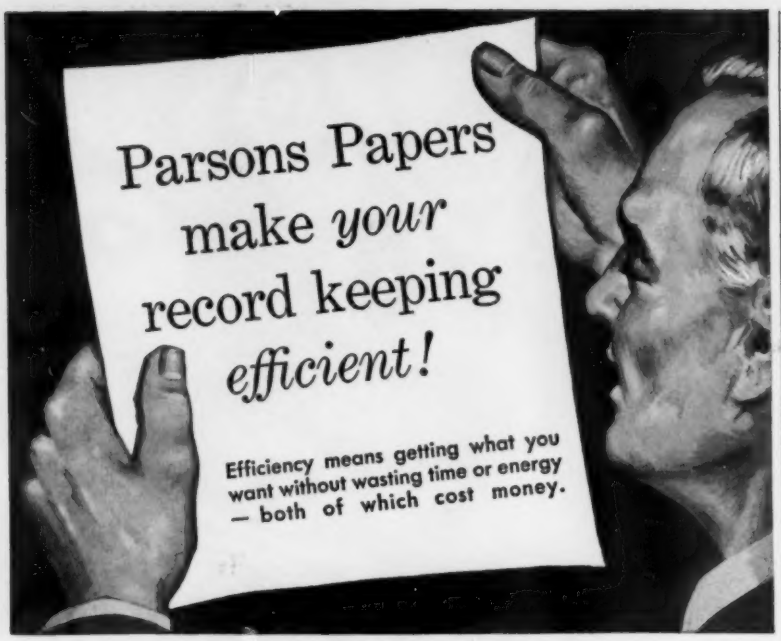
Remington Rand Inc. introduced last month its new Univac II, which doubles the speed and capacity of the current Univac, making it the most powerful business electronic data processor being produced, the company says.

Transistor compared with vacuum tube

A new feature in the Univac II is a magnetic core memory system, made up of thousands of tiny magnetic beads, or cores, capable of storing thousands of instructions and items of information.

The high speed memory system of the new calculator is capable of retaining 24,000 characters, and is able to execute instructions at the rate of 8,000 per minute, John E. Parker, Remington Rand vice president in charge of

(*To page* 42)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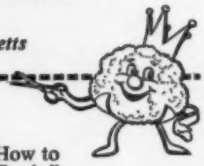

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(*From page* 29)

"The participation by a certain number of mathematically-minded men in the computerization process will result in more creative thinking in terms of measurements than your company has probably ever undergone before," he told the audience. "Goals or standards are practical only if reasonably accurate measurement is possible."

Two subsidiary implications of the "one-shot" concept are its potential for freeing operating management from "the more or less preliminary aspects of decision making," and the breakdown of rigid departmental lines within the company because of the use by all departments of one set of original data flowing automatically from source to processing.

"Melting" of barriers foreseen

"A reasonable by-product result of this melting away of departmental or functional barriers is that, as more management requirements of various departments become known to more of the other departments of a business, the better becomes the collaborative teamwork of the business as a whole," Bamert prophesied.

The first two speakers at the afternoon session on Tuesday, Basil Regione, and John D. Pardee, both of Arthur Andersen and Co., Chicago, had as their topic "Critical Considerations for Applying Electronics."

Regione warned the group against several common misconceptions regarding computers. There is a tendency in many companies to make a computer do everything it possibly can do, but that is often uneconomic, he pointed out. Thus, he said, a computer can be programmed to check certain operations but if the accuracy of the operation is normally quite high anyway, the computer check may cost more in time and money than it is worth.

Similarly, he said, attempts to correct minor errors on the part of the computer—as well as systems checks—can hinder the efficient operation of the computer, and he advised against allowing trivial errors to hold up succeeding operations.

He warned too against an inclination to try superfluous or unusual routines on a computer simply because the company has one and "it won't cost anything to try." Computers should

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be programmed for the great mass of heavy duty operations, not the exceptional cases.

He also said that it is not true that controls are unnecessary in computer installations. There is always the possibility of machine failure, or that certain areas may not have been properly programmed.

Conversion to computer operations must be carefully planned, including jobs to be done, personnel assigned, and schedule dates for changeover, he emphasized. He also pointed out that even in a scrupulously planned conversion, there are always some errors, and some programming that needs improvement. Therefore, he said, it is extremely important to allow adequate time for full conversion.

Three programming steps

The second speaker from Arthur Andersen, John D. Pardee, discussing programming a computer installation, said that programming involves three basic steps:

1. Design of the system, including reports flowing in and out.
2. Flow chart planning of computer operations.
3. Coding for the machine.

"Programming is like writing an instructions manual for a completely ignorant clerk who can do anything he is told to do, but can do nothing on his own," he said.

He also warned against trying to make a computer duplicate procedures as they existed before computer installation. Every procedure must be reexamined in the light of the computer's manner of operation, and also the opportunities it offers that are not available with conventional equipment.

Since data for every system must originate with human beings, and since human beings make errors, it is important to make provision for correcting human errors before data is fed into the computer because corrections after the computer has started processing interrupt its work and are expensive, he declared.

He also told the audience that it is important to standardize programming techniques, since there will usually be a number of programming personnel within a company using a computer. Symbols used should also be standardized, he said, so that a program can be read at any time after its design, by other personnel than those who designed it.

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It is also important to make the system as flexible as possible, he said, since very often it is necessary to change a program after it has been in operation. The more flexible the original system, the less difficulty there is in re-programming.

In discussing how to eliminate errors in setting up a computer system, he said that a series of tests must be run, first on the computer alone, then on the entire system.

First step is a review of the programming to check for clerical accuracy and for the overall logic of the operation. Then the operation itself must be checked first by paralleling the system with standard procedures, and then also by trying all possible exceptions which might arise during the course of computer operations.

Precise instructions essential

The final speaker of the Tuesday session, William E. Eggleston, Machine Procedures Accountant, Commonwealth Edison Co., Chicago, in outlining programming problems and costs, likened the programming process to a dinner table situation in which one participant, the programmer, would make a simple request, to the other, the computer, with these results:

Programmer: May I please have the cream?

Computer: Yes.

Programmer: Would you please pass the cream?

Computer: When?

Programmer: Now.

(Computer gets up and walks past the cream.)

Programmer: Would you please have the cream passed now?

(The computer has the cream passed to someone else at the table.)

Programmer: Would you please have the cream passed to me now?

At this point, the questioner gets what he wants.

In other words, the speaker pointed out, nothing may ever be taken for granted in programming for a computer. Instructions must be detailed, methodical, and unequivocal.

The Wednesday morning session was devoted to detailed discussions by three speakers on the characteristics and uses of three different computers—the IBM Type 650, the Datatron (ElectroData), and the UNIVAC. Harold F. Hatch, Associate Controller, John Hancock Insurance Co., covered "Applica-

tion of the IBM 650"; L. L. van Oosten, Methods Research Director, Allstate Insurance Co., Skokie, Ill., discussed the ElectroData system; and L. C. Simmons, Controller, National Tube Division, U. S. Steel Corp., Pittsburgh, covered UNIVAC applications.

Final speaker of the conference was Thornton F. Bradshaw, Partner, Cresap, McCormick, and Paget, New York, who outlined "The Future of Electronics as a Management Tool."

The mechanical revolution in data processing which is occurring today will force a new concept of management as far as planning and controlling of company operations are concerned, he told the audience.

"Effective utilization of electronic equipment demands a new concept of procedures which, in turn, will supply the tools by which management can plan and control operations," he declared.

The great advantages electronic installations offer in clerical speed and economy in individual applications are the smallest part of their potential value to business, Bradshaw said.

Thinking must be re-oriented

"Their full potential will not be realized until we re-orient our thinking away from functional areas such as payroll, inventories, production planning, etc., and toward thinking in terms of the impact of a single transaction on all functions," he said. "This approach is certainly not new—it has been vigorously espoused by many managements, including some of those that are testing the water with functional applications."

Pointing out that one reason it is unwise to attempt merely to transfer present procedures intact to computer applications is because present procedures have been built on the limitations of conventional machines, he told the audience that electronic data processing equipment makes it possible for the first time to eliminate the continual reprocessing of the same data to meet varying department needs as it flows through an organization.

There are three stages to full final utilization of electronic equipment, Bradshaw said: Regrouping of data processing units from scattered installations to a central installation, without any necessary dependence on new equipment; integrated data processing through a common language linking conventional machines, which still does

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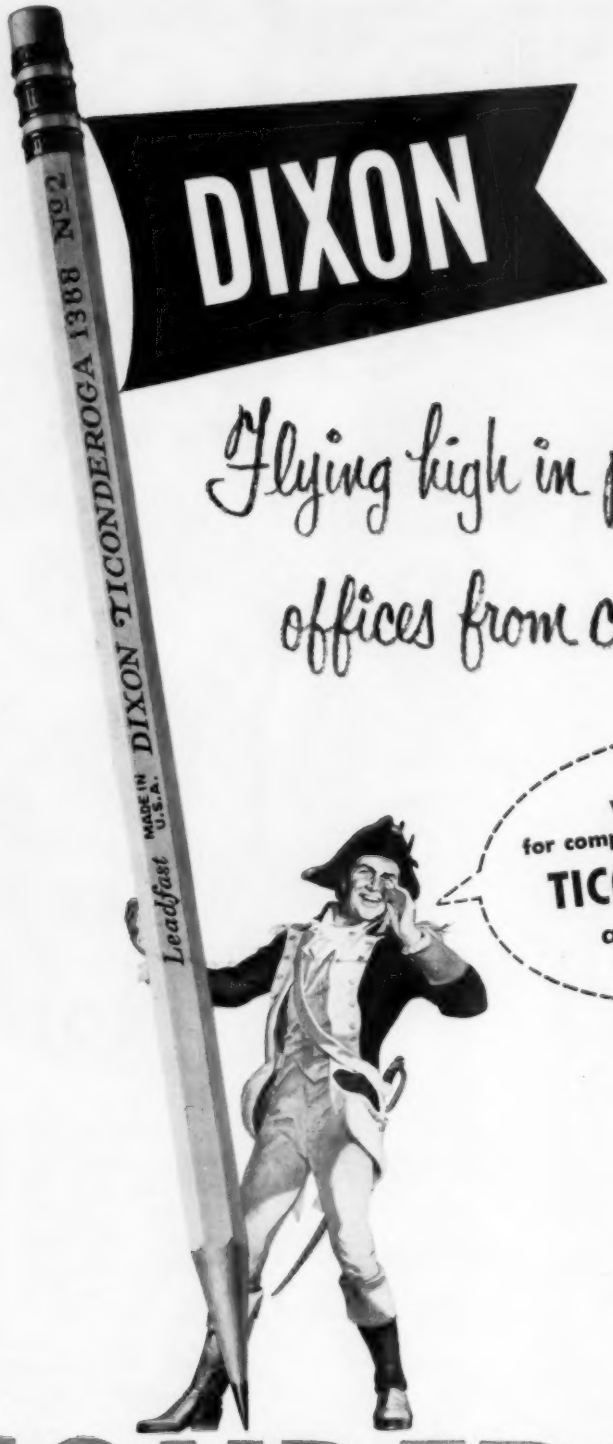

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not necessarily imply electronic equipment; and finally, complete reorganization, and the use of electronic data processing equipment.

"The final stage of this three stage approach can develop from either one or both of the two preceding stages," he stated. "For full realization of the potential of electronic equipment, there must be, I believe, a merger of the central data processing concept of organization and the integrated data processing concept.

"This merger will mean that a new concept of procedures has been implemented. It will mean that data processing has been centralized, that there is no human processing or reprocessing of data once the original data is prepared for the machine, and that the basic interdependence of procedures is recognized."

Final reports from raw data

In the third stage, Bradshaw said, it is possible to visualize feeding original data into equipment, and drawing from the machines reports and documents needed for the day-to-day operation of the business — available inventory reports, purchase orders, plant schedules, cost variance analyses, production reports, material usage reports, performance reports, available stock reports, planned shipments reports, invoices, bills of lading, etc.

The most significant result of these changes in procedures will be in the kinds of reports and information available to management. Use of an electronic integrated data processing system will give management three kinds of information, he said:

1. Information with which to plan.
2. Information with which to test plans.
3. Information with which to control planned operations and change plans when necessary.

He echoed the theory of the conference's opening speaker, Don G. Mitchell, that centralization of data processing facilities would aid the trend toward decentralization of management, rather than reverse it.

"Electronic equipment will provide the tools of planning, testing plans, coordinating the various parts of a plan and following actual results compared to a plan," he prophesied. "These are the functions reserved to top management in any decentralized operation.

"The proper use of these tools will, in my opinion, provide the means of making decentralized management effective. Divisional managers will be provided with overall plans and their areas of responsibility will be clearly marked. They will be provided with reports which will enable them to control their operations within the limitations of the plans."

As for the impact of electronic data processing on the accounting and clerical organizations of companies which institute it, Bradshaw said that he believed it would accelerate a trend already discernible toward separation of those who process data from those who analyze it.

Electronic data processing equipment was exhibited at the three-day conference by the Underwood Corp.; International Business Machines Corp.; Remington Rand Inc.; Western Union Telegraph Co.; Commercial Controls Corp.; Victor Adding Machine Co.; and ElectroData Corp.

All conference sessions were held at the Statler Hotel in New York.

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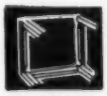

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Automation—

(*From page* 33)

electronic computer sales, declared at the press showing of the new calculator in New York last month.

Additional magnetic cores can be added to the calculator to bring its character retention ability to 120,000 —ten times the capacity of the current Univac, he went on.

To keep up with the speed of the new machine, the tape units which read from and write on the metal magnetic information tapes of the computer are operated at more than double the effective speed of present units.

According to Mr. Parker, the new machine has been designed so that it can, wherever it is desirable, be incorporated into existing installations built around the current Univac. Thus, the new model can make use of the High Speed Printer developed by Remington Rand last year for use with the earlier Univac, and can also be utilized with the Punched Card to Magnetic Tape Converter, Magnetic Tape to Punched Card Converter, and the Unityper II which can record information directly on tape.

Credit card system developed

Farrington Manufacturing Co., which developed the "Charga-Plate" credit identification system used in department stores, announced recently establishment of an electronic system designed for handling credit card sales procedures in accounting offices. The equipment, known as the Scandex System, will be offered first to oil companies on a rental basis to permit automatic processing of tabulating card invoices printed at point of sale with information from customer credit cards. The equipment will also be adapted for use in other businesses, such as department stores, which handle a large volume of credit sales.

The system "reads" the account number on tabulating card invoices sent to the billing department from the point of sale, verifies it for accuracy, and then key punches the information on the original invoice.

Equipment in the system consists of a scanner, and an interpreter which can operate conventional key punch machines. The scanner "reads" incoming invoices by means of a photo-electric cell operating with visible light. As data passes before the scanner, electronic impulses are transmitted to the interpreter for recognition and checking.

The interpreter, a small, special purpose digital computer, identifies each character transmitted by the scanner and, through a built-in serial number checking system, also verifies the accuracy of the account number on the invoice. If the interpreter finds the number is correct, it returns pulses which cause the key punch machine to punch the invoice card. If the number is incorrect, the unpunched card is rejected for manual punching.

Electronic units in the Scandex System were developed for Farrington by Intelligent Machines Research Corp., of Arlington, Va.

Sylvania establishes wire network

Western Union Telegraph Co., and Sylvania Electric Products Co., Inc. announced plans last month for establishment of a nationwide 12,000-mile private electronic communication system to link 57 cities into the new Sylvania data processing center to be built in Camillus, N. Y., near Syracuse. (See "Automation in the Office," page 31, April *Office Management*).

The telegraph company will provide specialized facilities linking all Sylvania plants, laboratories, sales offices, warehouses, divisional headquarters and executive offices to the new center.

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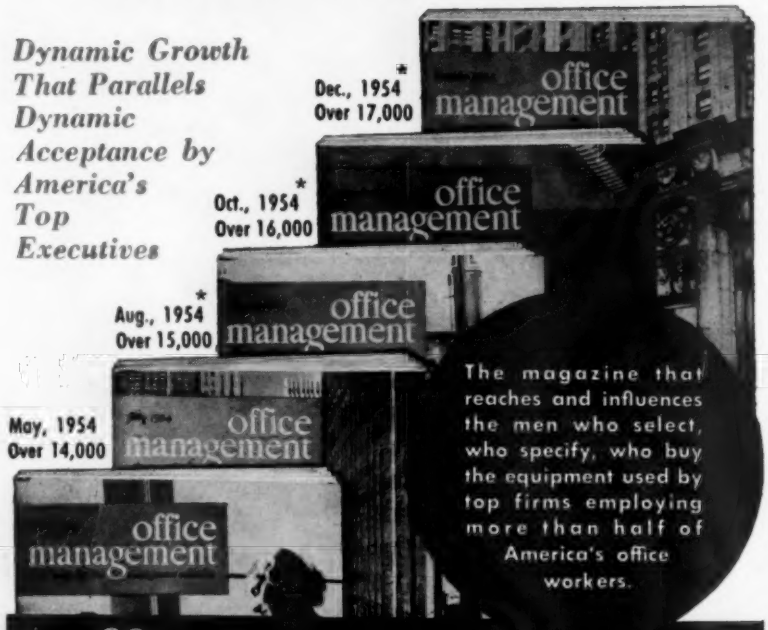
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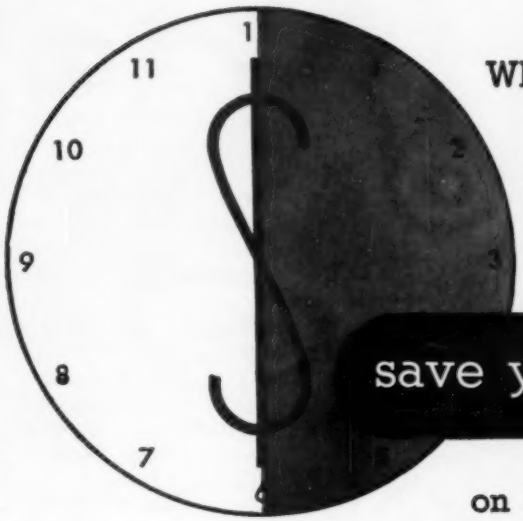

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Financial and production information will be fed from these scattered facilities over the leased network to Camillus where the data will be processed and summarized for corporate and decentralized management.

According to Walter P. Marshall, Western Union president, the Sylvania private wire system "will be the first nationwide network especially designed for automatic transmission of control data."

Leon C. Guest, Jr., Sylvania controller, said that the new Sylvania system "is, as far as we know, the only existing concept of a company tied completely together communications-wise, with the data processing function in its own centralized facility."

Three switching centers for the new system will be located in Williamsport, Pa.; Salem, Mass.; and Buffalo, N. Y.

Spokesmen for Sylvania and Western Union said that technically, by means of the leased wire system, statistical and other data will be translated into impulses at the transmitting point in much the same way as a telegram is transmitted. At the Data Processing Center, the electrical impulses will be reconverted to statistical form, and will be processed through the electronic computing equipment at the center.

Construction work on the center at Camillus is scheduled to start about July 1. Leases on the new Western Union communications system will go into effect next January 1.

Wayne U. plans summer automation courses

The Computation Laboratory, Wayne University, Detroit, has announced a series of four short special summer courses dealing with subjects related to automation and scientific approaches to business problems. The courses are:

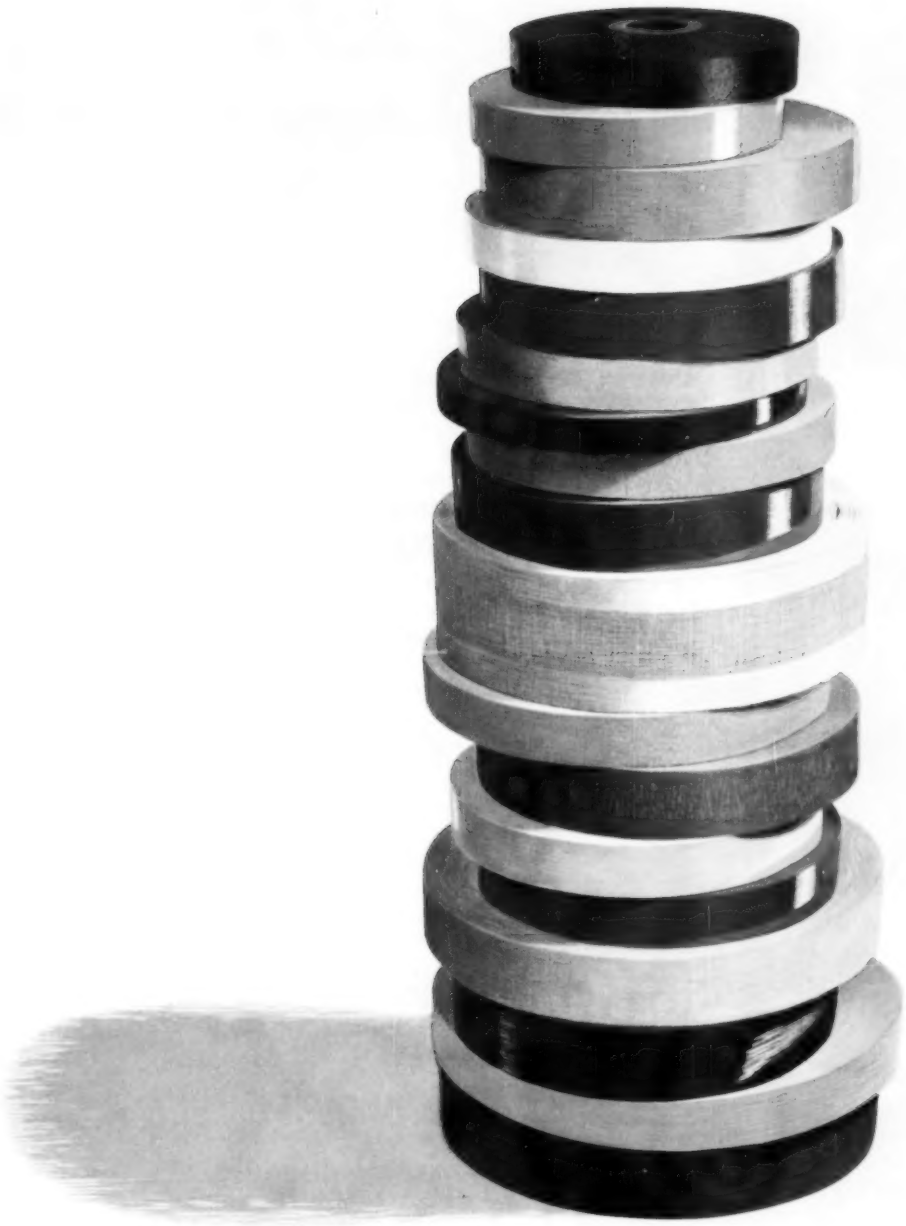
(1) Electronic Computers, Business and Engineering Applications, June 6 to 11.

(2) Automatic Data Processing, June 13 to 18.

(3) Mathematical Programming of Management Problems, June 20 to 25.

(4) Numerical Methods and Advanced Programming Techniques, June 27 to July 2.

The university will use its UDEC computer and several other machines to demonstrate the programming of representative business and engineering problems.



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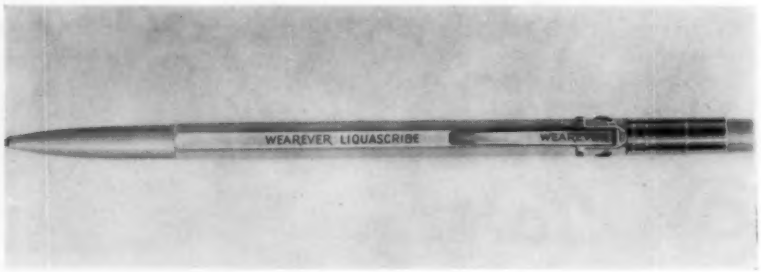
◀ **Wall-type intercom**
Executone, Inc., 415 Lexington Ave., New York, has announced its "6000" electronic intercom system. Available with the new system are wall and other types of master stations. Full communication is controlled by pushbuttons. The system also provides complete paging facilities.



▲ **Retractable liquid pencil**
The Wearever Liquascribe pencil is a new model of the liquid type. It has recently been introduced by David Kahn, Inc, 1207 Grand Ave., North Bergen, N. J. The pencil is designed to write dry without smearing or smudging. Cartridge and eraser are both renewable, and the point is retractable. Price, 29 cents.

◀ **Desk-top microfilmer**
This is the new Reliant microfilmer made by Recordak Corp., 444 Madison Ave, New York, a subsidiary of Eastman Kodak Co. The unit takes 16 mm film, has reduction ratios of 40, 32, and 24 to 1, can simultaneously photograph two sides of a document side by side, or can record one side at a time on the full film width.

▼ **Noiseless typewriter**
This new noiseless typewriter features "Pressure Printing," by which a slight tap on the key is sufficient to create a uniform impression on the paper, using a precisely calculated weight. Executive type styles are available, as are ribbons in various colors. The manufacturer is Remington Rand Inc., 315 Fourth Ave, New York.

New for the office

◀ **Space-saving files**
Tract-A-Files, made by the Ramsey Co., Washington Square Bldg., 7th and Chestnut Sts., Philadelphia, are suspended from overhead tracks. They are easily moved, so that several rows can be placed closely one behind another, saving floor space. Units are equipped with doors, can also have shelves, rails for suspended folders.

► **Collator**
The Model 85 collator, made by the Cummington Corp, 620 Commonwealth Ave., Boston, utilizes a new design concept. An eight-station model, it can handle light paper intermixed with heavy ledger paper in sizes from 5 to 7 to 11 by 14 in. Double suction-cup pick-ups are used. Total floor space is 31 by 63 in.

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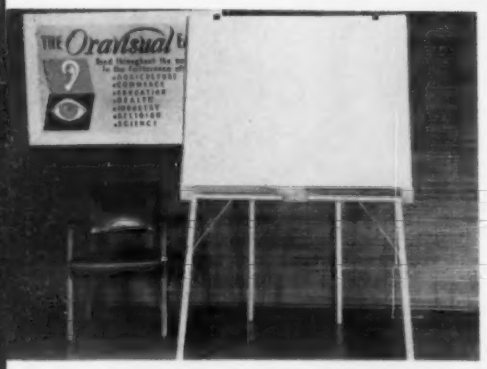
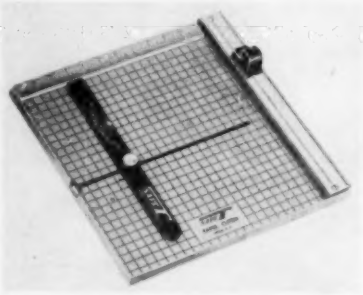


▼ Paper cutter
The Safe-T Paper Cutter features a hidden blade which is concealed so that the unit can be used in safety. A standard Schick Injector razor blade is used. The cutter is designed to cut paper, cloth, tissue, cardboard, and other materials. It is made by the Hectographia Corp., 110 W. 17th St., New York.



▼ Upholstered arm chair
One of several new designs recently introduced by Lehigh Furniture Corp., 16 E. 53rd St., New York, this chair is styled by Von der Lancken, Lundquist, and Sorensen. It is offered in a combination of walnut and cherry, or all of walnut. Seat and back are of foam rubber. List price, $98.75.

◄ Folding easel
Oravisual Co., Inc., Box 609, Station A, St. Petersburg, Fla., offers this Giant Whiteboard Easel, designed for use with 45 by 35½-in. paper pads. It is equipped also for use with turn-over charts and cardboard charts. Price, $92; with extension legs, $104.

▲ Business greeting cards
This card carries a message that begins: "It is good to know that you will be one of our valued accounts. We will do everything in our power to please you." It is one of a new series introduced by Ideas for Industry, 15 W. 44th St., New York to add a light, human touch to routine business correspondence.

▼ New file line
The Spacefinder File, made by Tab Products Co., 57 Post St., San Francisco, is designed to combine the space-saving features of open-shelf filing with the protection against dust and dirt provided by drawer-type files. The doors serve also as pull-out work shelves for file maintenance and notations.

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quiet · high-speed electric attractively priced
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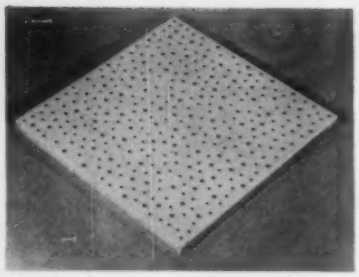
► **Acoustical tile**
Minatone, a product of the Armstrong Co., Lancaster, Pa., is an economical ½ in. thick, compared with a regular thickness of ⅝ in. It is of incombustible mineral fiber and is offered in 12- and 24-in. squares.



► **"Padless" rubber stamp**
This rubber stamp, made by Everprint Products, Inc., 224 Livingston St., Brooklyn, N. Y., does not require an ink pad. The rubber itself is impregnated with a new smudge-proof ink designed to give 100,000 impressions.

◄ **Mimeograph cabinet**
Bohn Duplicator Corp., 444 Fourth Ave., New York, has announced a new cabinet for use with stencil duplicators. The doors have touch latches (handles are not necessary). Storage and pull-out shelves are provided. Price, $59.50.

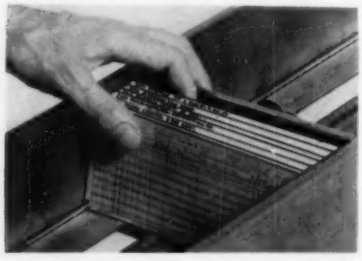
▼ **Personal safe**
The Sentry line of safes, made by John D. Brush & Co., Inc., 545 West Ave., Rochester, N. Y., offers several new features this year. This model is a new size—3,285 cu. in. Others are available in wood cabinets finished in bleached mahogany and walnut.

▲ **Copying machine**
Minnesota Mining & Mfg. Co., 900 Fauquier Ave., St. Paul, maker of Thermo-Fax copying equipment, now offers a desk-top copier called the Secretary. It copies transparent or opaque originals in about four seconds.

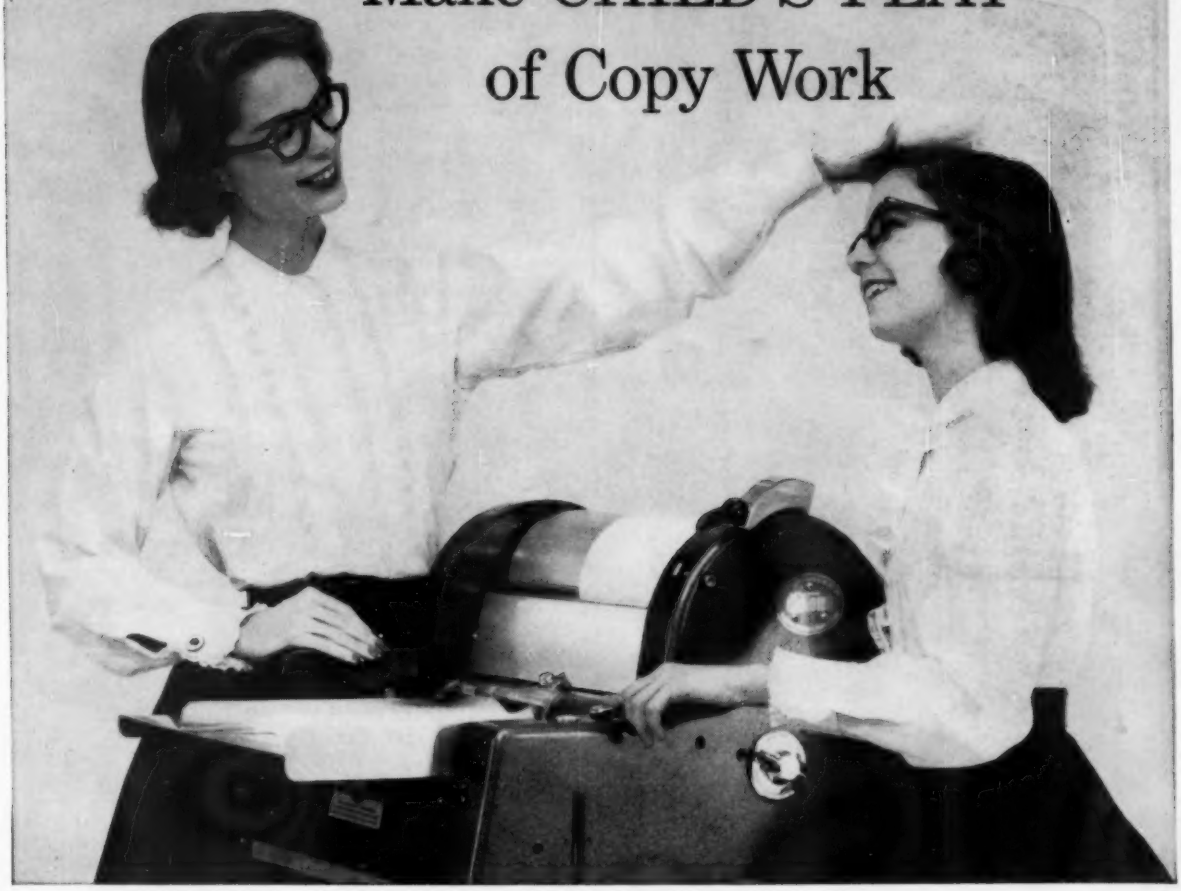
◄ **Machine stand**
The new "Guardian" line, made by the Cramer Posture Chair Co., Inc., 1205 Charlotte St., Kansas City, Mo., features ¾-in. plywood tops, square tubular steel frames, self-levelers.

▼ **Self-indexing tab cards**
Self-Guide cards are their own indices. Standard cards, notched at bottom corners, settle down over rails in tray; indices, not notched, protrude ¼ in. Offered by Wassell Organization, 11 Sylvan Rd., Westport, Conn.

► **New chair line**
This is one of the Modernease line of chairs offered by Invincible Metal Furniture Co., Manitowoc, Wis. It has a mar-proof fiber-glass base which automatically adjusts to variations in the floor and absorbs shocks.



Make CHILD'S PLAY of Copy Work



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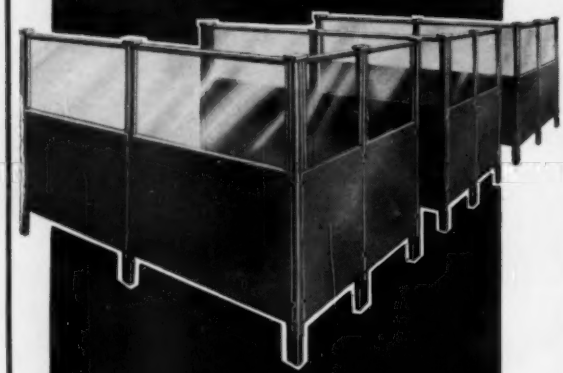
more work space
in *any* office!



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***Exclusive* FLUSHLOK *Accessories* . . .**

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Office Partitions

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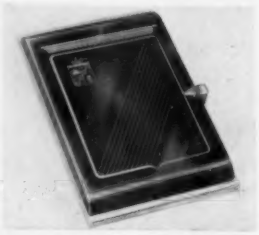
Dept. OM5, 32-01 Queens Blvd.
Long Island City 1, N. Y.

New for the Office

(Continued)

► Low-cost chair

Alvin Industries, 14 - 104 Merchandise Mart, Chicago, offers this all-purpose chrome chair at $4.70. Construction is of 18-gauge tubular steel, completely welded. Legs have plastic foot caps. Back and seat are padded with washable soft plastic. Available in several colors.



◄ List finder

The Crusader is a new model telephone list finder introduced by The Bates Mfg. Co., Orange, N. J. It is of metal, holds 1,600 names, and features a single-action lever. $3.25.

► Telephone aid

For the girl who finds earrings an inconvenience in using the telephone, the Eze Co., Box 719, Hawthorne, Calif., offers a device called Tela-Eze. Made of washable plastic, in red, blue, green, ivory, or black, it snaps easily on and off the earpiece. Tela-Eze is priced at 80 cents.

◄ Water cooler

This water cooler, designed for off-the-floor installation, is 21 in. high and can provide 6 to 17 gallons per hour, depending on the model. Made by the Sunroc Corp., Glen Riddle, Pa.

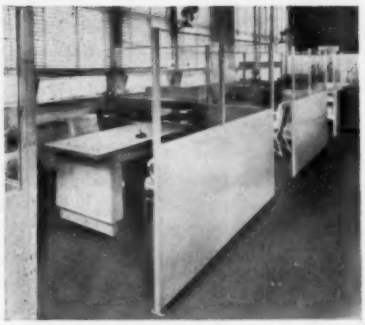
► New receptacle

The Bennett Closed Drop-in Waste Receptacle is a new product of The Bennett Mfg. Co., Alden, N. Y. It has a self-closing door, and the round design of the top was created to provide all-round accessibility. It is finished in white enamel and has a stainless steel base.

Tools of the Office

Movable Partitions

by Robert Beeman



Movable partitions may be used with or without modular furniture. Top: wood-finished partitions and furniture, made by D & L; bottom: an installation of all-metal Globe-Wernicke "Techniplan" units.

THE EFFICIENT USE of office space is not primarily a matter of how many people or machines can be crammed into a given area. Rather it is a question of adapting that available space to the smoothest possible operation of the office functions. This may lead to space reduction, or it can lead to expansion. But the basic point is that it is the efficient operation of the office which is vital, not the "population density."

An essential factor in the use of space is the means of subdividing it into the areas in which the various office functions are performed. This can be done in a number of cases merely by locating in one area the desks and equipment pertaining to each operation, making sure, of course, that each such area is placed where it can be coordinated with the general work flow.

But in many cases a more complete physical separation is necessary. This need may arise from the fact that a particular operation requires a degree of privacy—as in the case of interviewing, or in conducting certain legal matters—or that it involves noise, heat, or odors that may inconvenience neighboring areas—as in the case of certain types of machine operation—or that it

For maximum privacy, ceiling-height partitions can be used. These Weber and Virginia Metal installations indicate some of the decorative possibilities.

Acoustical treatment is featured in some models. Left: GR Products' "Soundex" partitions; right: Boyle panels in AT&T's Long Lines Building, White Plains.

Space can also be subdivided by using folding doors and walls. Left: Hough Shade's "Hufcor" laminated door; right: Brunswick folding partitions.

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ARNOT-JAMESTOWN DIVISION
AETNA STEEL PRODUCTS CORPORATION
JAMESTOWN, NEW YORK

may involve employee morale—as when certain individuals are entitled to the prestige of having separate offices.

Until recent years, physical separation was accomplished generally by the use of permanent partitions. This method at least assures the maximum in privacy. But that is not necessarily a virtue. It can interfere with effective supervision. It can be a hindrance to smooth work flow. And above all, it is seriously lacking in flexibility.

An office which is alive to the changing needs of business must be prepared to expand and contract—it might be said to "breathe"—and to shift its approach to meet new situations. To the extent that its internal physical processes must change with the times, permanent partitions are a hindrance. They can be torn down, of course, and rebuilt, but the process is costly and in many operations the benefits are not worth the expense.

Over the last few years, therefore, the tendency has been to remove permanent partitions in the general work area. Many new buildings are built without partitions in the main work spaces, and large numbers of clerical personnel work together in vast open areas.

Flexibility versus privacy

Thus the office has attained flexibility, but at the expense of privacy. Some operations must be conducted privately, however, and others interfere with nearby operations. As a result, the office has come up with an answer which has been increasingly popular since the war—movable partitions.

In the broad sense, movable partitions include many types, including panels that slide into walls, folding partitions, and the many varieties of prefabricated, lightweight partitions that can be installed wherever desired in a large area.

The prefabricated types may be of steel, composition, or other material. They may be of railing height, they may extend to the ceiling, or they may be of various intermediate heights. They may have panels of clear or translucent glass, or they may be of steel or composition entirely. Some can be equipped with bulletin boards, blackboards, raceways for electrical wiring, electrical outlets, soundproofing

and other special features. Access can be through open spaces between partitions or through doors that close as securely as any other door. Some partitions can be used with furniture units, such as desks and files, attached; other partitions can be affixed to the tops of desks or counters.

Not only can various types of partitions be adapted to various uses, but they can be used in different combinations. It is also possible to simulate certain types of partitioning by the use of banks of file cabinets, wardrobes, and other furniture.

Movability an asset

Probably the greatest advantage of movable partitions is their flexibility. They can be easily installed and as easily taken down, moved elsewhere, and set up again. The purchaser who installs a set can take them with him when he moves.

This flexibility, however, is relative. Partitions are usually bolted or otherwise fastened to the floor and/or to each other, and perhaps to the ceiling, and they are not moved merely by pushing them around. Moreover, when electrical wiring has been installed, an additional problem is involved in rearranging them.

It is interesting that a sampling of reader opinion on this subject by *Office Management* showed that users of movable partitions considered their movability a factor of major importance, yet that they actually tended to let the partitions stay put once they were installed.

This may point out a virtue of movable partitions: they are not so easily moved that the office is constantly being rearranged to suit somebody's whim, yet as compared to the inconvenience and mess of altering permanent partitions, they are highly adaptable, and are certainly less costly.

Privacy varies with design

In the opinion of readers, the second most prized quality of movable partitions was the privacy they can provide. Again, this is not unqualified. Privacy has to do both with sight and sound. Unless a partition has clear glass, it will generally provide visual privacy. However, its ability to provide privacy of conversation is variable. Some partitions are soundproofed. Yet it is obvious that if the partitions do not extend to the ceiling, sounds on one side of it can rise to the ceiling and be

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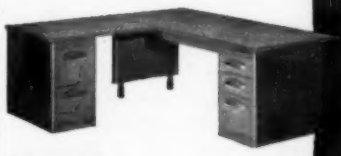

*Pat. Pending. †Trade Mark. ‡Licensed under DuPont Patent

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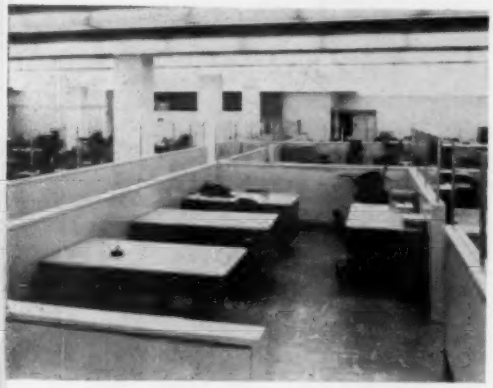


This Martin-Parry installation shows the use of movable railings in conjunction with higher partitions.

reflected audibly to the other side, unless the ceiling is sound-absorbent.

In other words, if noise reduction is a principal aim of installing movable partitions, thought should also be given to treating the ceiling acoustically, at least if the partitions are of less than ceiling height.

Noise-reduction possibilities

Properly used, of course, partitions can be valuable in reducing the noise level around tabulating equipment and other machinery that might otherwise disturb adjacent personnel. The degree to which sound reduction is actually effective will necessarily vary with the height and construction of the partitions, and with the acoustical treatment of associated walls and ceilings.

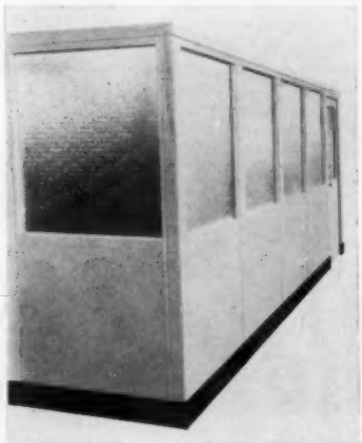
It will be clear that partitions must be used intelligently to obtain all the benefits they can offer. They should not be oversold; neither should they be undervalued. The variable effects noted above in respect to noise reduction apply also to such matters as lighting and ventilation.

Some readers praise movable partitions for the improved ventilation that followed installation. Others complain that ventilation is impaired. Clearly this difference of opinion indicates differences in the way the partitions were used.

Obviously, half- or three-quarter-height partitions allow a much freer air circulation than solid, permanent partitions. On the other hand, ceiling-height partitions installed without regard to existing air facilities, can hinder proper ventilation.

Recognizing the trend toward flexibility in partitioning, the architects of new office buildings tend to install air conditioning or ventilating systems on a modular basis. A basic unit of measurement is selected as the desirable distance between duct openings or other fixtures, and the fixtures are located throughout the office area at intervals which are multiples of this basic unit. The distance chosen is reasonably small. Thus, air conditioning is provided evenly throughout the space, and partitions may be moved at will without interfering with the air supply.

Similar consideration is given in the newer buildings to lighting and to electrical connections. In particular, the use of luminous ceilings provides even lighting regardless of the location of partitions. If overhead lighting fixtures are reasonably close together, lighting is no particular problem in connection with installing partitions. But if the fixtures are widely separated, the light within the partitioned areas may be uneven, with portions of the space in shadow or semi-shadow.



Cornice-height partitions may have clear or translucent glass, or may be solid. This is a new Mills design.

Partitions must fit the building

Likewise, any significant problems with respect to the source of electrical power can be obviated by installing electrical outlets at frequent intervals.

Because of the wide variety of partition designs, it is clear that they can be adapted to a variety of different uses. They must be adapted to the building and to the user. Not only must the lighting, ventilating, and noise reduction problems be treated with respect to the building, but the design of the partitions themselves must be suited to the user. The person who requires visual privacy, for example, would not like clear glass partitions, nor would the supervisor who feels that partitions interfere with his supervision care to be walled in with ceiling-height partitions of solid construction.

Basically, the movable partition is a substitute for permanent partitions. It has the virtue of being reasonably inexpensive and convenient to install and to move. It can be applied to many uses, including not only the usual purposes of permanent partitions, but also to facilitate work flow and to provide the means for making office operations efficient. It generally does not provide the complete privacy offered by permanent partitions, but, if properly selected, it can perform most of the other functions quite as well.

A word should also be said about those partitions incorporating furniture units. Generally the furniture consists of one or more desk tops, together with drawer space. The desk tops normally are at right angles to each other, creating an L-shaped work area. This arrangement has proved remarkably efficient. Such arrangements, of course, are not limited to partition installations, but movable partitions adapt themselves very well to the L-shaped type of furniture.

The Manufacturers

Acme Steel Partition Co., Inc., 130 *Steuben St., Brooklyn, N. Y.* Partitions entirely of steel, of steel and glass, and all glass, with panels from 30 to 42 in. wide. Standard ht., 7 ft., superstructure to 15 ft., permitting ceiling-height installation. Clear and translucent glass. Partitions set in floor channel. On grounds that electric raceways destroy movability of partition and that they cost extra, these partitions are made without raceways.

Add-A-Unit Partition Co., 946 *W. North Ave., Chicago.*

All Metal Partition Co., Inc., 194-204 *DuPont St., Brooklyn, N. Y.* Line of steel partitions.

Arnot Jamestown Div., Aetna Steel Products Corp., 5035 *Dow St., Jamestown, N. Y.* Line of "Partition-ettes" includes panels 39, 54, and 68 in. high, of steel, some with clear or frosted glass, some with acoustical paneling, some with both. Panels available in 10 stock widths. Designed for use as free-standing partitions or with modular furniture units from "Office-ette" line, including desk tops, pedestals, panel end supports, bookcases, etc., to create complete offices. Pegboard and

chalkboard units available, together with other accessories. Electrical raceways.

Art Metal Construction Co., Jones & Gifford Aves., Jamestown, N. Y. "El-unit" panels available with or without furniture. Units vary from 15 to 75 in. in width. Standard ht. 66 in., installed. Panels of steel; inside lined with felt for noise reduction. Upper sections of glass or acoustical panels. Panels locked together by post stud interlocking with keyhole slots. Wall and floor fastenings optional. Panels have cutouts for electrical outlets and phone jacks. Line of work tops and filing cabinets available for use with panels. New feature is lightweight aluminum door.

Art Steel Sales Corp., 170 *W.* 233 *St., New York.* "Steelmaster" line includes "Uno Office Modulettes," consisting of modular partitions, desk tops, end panels, pedestals, etc. for combination into semi-private offices. Partitions are 50 in. high, of steel, but can be provided with channels for glass or pegboard. Various accessories available.

E. J. Boyle Div., Aetna Steel Products Corp., 14 *Charlton St., New York.* "Aetnawall" line of steel partitions. Stock heights, 3', 5'6", 7'2", and 8'4", with closure units to any ceiling height. Other non-stock heights available. Panel unit widths in 6-in. multiples. Panels sound deadened, and additional acoustical treatment can be ordered. Panels capable of carrying wall-hung equipment, such as blackboards, cabinets, etc. Wickets, deal plates, slide windows, etc., available. Units fasten to floor, also to wall and ceiling if required.

Browne-Morse Office Furniture Co., Muskegon, Mich. Primarily a manufacturer of standard office furniture, this company also produces panel backs for counters and frosted glass wickets and grills for installation atop counters and desks.

The Brunswick-Balke-Collender Co., 623 *S. Wabash Ave., Chicago.* Line of custom-built folding partitions, operated electrically, manually, or mechanically. Doors are laminated of combination wood, fiber board, and plastic, and are available with natural or painted finish. They are hung from building framing members, riding in tracks, and are offered in whatever heights are required. Accessories include chalkboard, cork board, pass doors, etc.

Irwin Casper, Inc., 401 *Broadway, New York.* Line includes "Casper Portable Partitions," of metal and glass. Available in wide variety of heights, including ceiling heights, and in various widths. Three thicknesses, from 2 to 3 in. Partitions are acoustically treated, have electrical wireways. Panels fasten to floor and wall, also to ceiling when required.

Corbin Wood Products Div., The American Hardware Corp., Orchard St., New Britain, Conn.

D & L Office Furniture Co., 61 *W. Hubbard, Chicago.* Line of partitions for use with or without modular furniture. Panels of oak or walnut with formica or glass. Finishes: oak or walnut, or special finishes. Partitions are free-standing in L or U shape, with raising and lowering devices for adjusting to floor. Panels hook together, do not need screws, but can be fastened to wall or floor. Standard height, 72 in.; special sizes available. Company is designing small partitions to fit on edge of desk; these will be of sound absorbing material, or in walnut and glass.

Driwood Corp., Box 447, *Monroe, Ga.*

Flex-Wall Div., American Sanitary Partition Corp., 37-03 21*st St., Long Island City, N. Y.*

John T. Fairhurst Co., Inc., 45 *W.* 45*th St., New York.* Folding walls.

GR Products, Inc., 142 *Federal Sauare Bldg., Grand Rapids, Mich.* "Soundex" partitions offered in 5 types, 30 different units. These have Sherwood frames, sound absorbing sandwich panels, are finished in grey oak, natural oak, and walnut frames, or in enamel of various colors. May be fastened to floor if desired. Available heights: 42, 55, and 67 in. Lengths: 20, 30, and 60 in. Equipped to take concealed wiring. Also a line of "Soundex" walls in three heights, including ceiling height. Similar in construction to partitions. Some with clear, some with glazed glass, some with full-height sound panels.

The Globe-Wernicke Co., Ross & Carthage Ave., Cincinnati. "Techniplan" line of partitions for use with or without modular furniture. Panels of steel with closed and open bases, clear or frosted glass, or with acoustical panels. Partitions are interlocked to desk units and are not attached to floors or walls; however, floor con-

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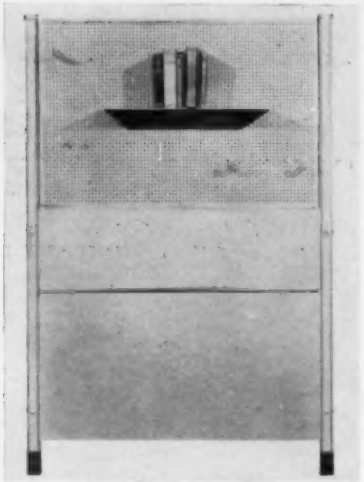
Next Month:

Bookkeeping and Accounting Machines and Systems



Special panel designs include peg-boards, like this Arnot model, chalk-boards, and bulletin boards.

nectors make it possible to set up partitions independently of furniture. Heights, 48 and 66 in.; widths, 25, 33 1/16, and 45 1/16 in. Can be equipped for electrical wiring and outlets. Accessories include fluorescent lights, book shelves, etc. Available with (or without) the partitions are numerous furniture units, including desk tops, pedestals, end supports, etc.

The E. F. Hauserman Co., 6800 *Grant Ave., Cleveland.* Line of "movable steel interiors" includes partitions, wainscoting, and accessories. Flush, paneled, and industrial types. Heights from 3 ft. to unlimited ceiling height; widths variable. Some are solid, some have glass. Accessories include matching railings and doors. Finishes include wood grain reproductions and 140 standard plain colors. Panels acoustically treated. Wiring facilities provided.

Hemisphere Steel Products Corp., 3701 *Queens Blvd., Long Island City, N. Y.* Line of "Flushlok Flexi-Walls." These are completely flush, free-standing partitions, available in 10 stock widths and in heights of 39, 54, and 68 in. Construction of steel, insulated. Clear, translucent, and frosted glass available. Panels hook to each other. Features include electrical receptacle in panel, optional base boards, raceways for electrical wiring.

Higgins Steel Equipment Corp., 33 *Jumel Place, New York.*

Holley Associates, Route 38 *at Church Rd., Merchantville, N. J.* "Parflex" line includes variety of free-standing partitions. Construction: wood, aluminum extrusions, Marlite panels in eight wood grains. Upper portions of panels have glass sections. Height to glass, 48 in.; glass section either 18 or 24 in., with special heights available. Panel widths from 18 to 96 in. Accessories include flush doors (full height), glass doors, hollow base for utilities.

The Hough Shade Corp., 1023 *S. Jackson St., Janesville, Wis.* Two lines of folding doors: the "Hufcor" laminated door and the "Ra-Tox Fashionfold" wood-slat door. Hufcor doors are of five-ply laminated construction, mounted on metal vertical pantographs, attached to overhead track and, if desired, to jamb. Heights, 6′ 6″, 6′ 8½″, and 8′; also custom sizes. Widths from 2′ 6″ to 10′. Latches and lock assemblies available. Ra-Tox line is of wood-slat construction, in 6′ 8″ and 8′ stock heights, 2′ to 10′ widths, custom sizes available. Attached to overhead track, and, if desired, to jamb.

Johns-Manville Corp., 22 *E.* 40*th St., New York.* Line of movable asbestos walls includes "Imperial," Universal" and Class "A" designs. Imperial walls in all heights, Universal to 16′ 4″, Class A to 16′ 6′. Partitions anchored to floor, and in case of ceiling-height models, to ceiling. Features include vertical and horizontal wiring raceways. Integral chalkboards, soundproofing, variety of new finishes available.

Knoll Associates, 601 *Madison Ave., New York.*

Korda Industries, 20 *W.* 46*th St., New York.* "Kordarooms" are line of furniture units with partitions attached. Furniture includes one-piece L-desk top, bookcase with adjustable shelves, desk pedestal. Partitions are bolted to outer edge of desk top. Construction: steel, special hardboard lamination, aluminum, bronze, and glass. Heights, 50 and 72 in. Features include doors and gates. Typewriter well and built-in drawing board models available, also units with peg boards, bulletin board, and acoustic panels. "Kordawall" line consists of steel, hardboard lamination, and glass partitions, mostly of the free standing type. Heights: 50, 60, 66, and 72 in.; widths from 1 to 9 ft. Doors and gates, acoustic panels, peg board, bulletin board, credit and collection counters, cash slots, etc., available.

Kraus Co., 332 *Plover St., Stevens Point, Wis.*

Marsh Wall Products, Inc., Dover, Ohio.

Tools of the Office

Martin-Parry Corp., P. O. Box 964, *Toledo, Ohio.* "Metlwal" line consists of partitions, paneling, railings, and doors. Construction: steel, all-flush, with finishes in wood grains or plain colors. Wide range of heights; including ceiling heights; basic width, 24 in. Panels fastened to floor by snapping onto steel studs. Ceiling height panels attach similarly to ceiling. Panels designed to reduce sound transmission. Glass sections available, as are chalkboard and other types. Panels equipped to take electrical wiring and outlets. "Metlwal Jr." line includes partitions of 42-, 54-, and 68-in. heights, in a variety of widths. Glass panels normally used at top in the two larger sizes.

The Mills Co., 965 *Wayside Rd., Cleveland, Ohio.* Several lines of movable steel walls. "Flush Pilaster" line, includes many varieties, some with glass, some without. Construction is flush. Heights vary from railings to ceiling-height partitions. Many widths offered. Panels fastened to floor and/or wall. Features include acoustical treatment, doors, transoms, wiring facilities. "New Executive Partitions" introduced last September, have continuous base, continuous honeycomb type core of insulating fiber, patented floor leveler, adjustable door and frame, and other features. Also offered is line of commercial partitions. Full range of accessories available.

National Steel Partition Co., Inc., 600 *E.* 156*th St., New York.* Line includes hollow metal partitions from 36-in. railing height to 10 ft., some of flush type, some of panel type. Widths from 30 to 60 in. Glass used in some models. Partitions fastened to floor; adjustable to variations in floor level. Accessories include wickets, transoms, interchangeable lock sets, door closers, etc.

New Castle Products, New Castle, Ind. "Modernfold" line of folding doors. Doors have nylon trolley wheels, running on overhead track; no floor track necessary. Doors have steel frame of interlacing collapsible and extensible box-like hinge plates at top and bottom. Frame covered with washable, flame resistant, vinyl coating fabric, available in 40 colors. Standard heights: 6′ 6″, 6′ 8½″, and 8′; special heights to 20′ can be ordered. Standard doors for openings from 3′ to 14′; special orders also. Operation elec-

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Q. When does 15% "equal" 100%?

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SOUNDEX PARTITIONS* soak up office noise like blotters soak up ink.

*(surface area, 15% perforations exposing acoustical spun glass core.)

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trical or by hand crank. Sound insulating material used.

Otis Steel Products Corp., Ellicottville, N. Y. Line of free-standing "Panel-ettes" which lock together with spring-loaded mechanism. Panels are insulated and fireproof. All-steel and glass models offered. Stock heights: 39, 54, and 68 in.; 11 stock widths available, from 9 to 66 in. Posts may be standard or electrified, with double plug outlet. Doors and gates available.

Pennsylvania Wire Glass Co., 1612 *Market St., Philadelphia.* Line includes corrugated glass, without wire, for use either as a complete partition or as part of standard partition, using any appropriate type of framing.

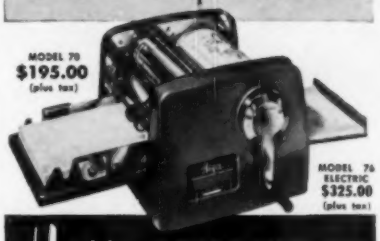
Resolite Corp., Zelienople, Pa. Line of translucent panels molded of polyester resins and reinforced with a blanket of woven glass fibers. Can be used as complete partitions or in connection with conventional partitions.

Richards-Wilcox Mfg. Co., Aurora, Ill. Line of "Folding Wall" units, of wood construction, designed to be hung from the ceiling. Available in wide variety of heights. Can be furnished with chalkboards or corkboards. Panels acoustically treated to reduce noise.

Shaw-Walker Co., Muskegon, Mich. Line of "Sectional Partitions" made of steel with four reinforcing channels. Panels interlock with posts of heavy gauge tubing. Posts have 2½-in. adjustable rubber footing for height adjustment. When partitions are formed in L-pattern, they may be free standing; otherwise, floor anchors are used approximately every 10 ft.; can also be attached to walls. Height: 42, 57, and 71 in., each adjustable 2 in. upward. Ten stock widths, from 18 to 64 in. Optional features include pass-through shelf, seven widths of bookshelving, plain doors, doors with glass or acoustical panels, sliding glass upper panels, posts with electrical connections, acoustical panels, etc. Also a line of "Sectional Furniture" units designed to be used with (although not attached to) the partitions. Units include desks and tables, files, pedestals, etc., in a wide variety of designs and sizes.

Steel Partitions, Inc., Jamestown, N. Y. Several lines of partitions, including flush, panel, and smoke screen types. All are attached to floor, and, if required, to ceiling. Flush type available in 7′ 2¾″, 8′ 2¾″, 9′ 2¾″,

"Always Makes a Good Impression"



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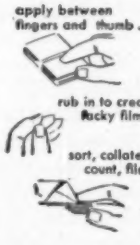

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Typical of free-standing partition designs is this installation by Hemisphere Steel Products Corp.

and 10′ 2¾″ heights; panel type in heights from 7′ 3¾″ to 15′; smoke screen in same sizes as the other two lines. Flush panels from 12″ to 48″ wide; panel types from 16″ to 64″. Flush partitions are acoustically treated; flush and panel types may be all of steel or consist of steel and glass or acoustical panels.

Steelcase, Inc., 1491 *Division Ave., S., Grand Rapids, Mich.* The Steelcase partition line consists of steel partitions with upper sections of glass (clear or frosted), or acoustical steel panels. The base unit is 42 in. high to permit the use of counter-height furniture with it without its projecting above the panel height. Over-all heights are 42, 57, and 71 in. Panel widths vary from 18 to 64 in. Electrified posts can be provided.

Takapart Products Co., Babylon Turnpike, Freeport, N. Y.

United States Plywood Corp., 55 *W. 44th St., New York.* "Weldwood Movable Partitions" are panels with fine hardwood face, Weldrok mineral core, of flush design, with concealed steel connectors. Partitions attached over finished floor. Heights: 44, 52½, and 85 in.; also ceiling height. One-piece ceiling-height units offered. Widths from 24 to 48 in. Thickness, 1¼ in. Units designed to provide sound barrier. Provision made for accessible, concealed wiring. Finishes: birch, korina, walnut, and other hardwoods.

The Upson Co., Lockport, N. Y.

Virginia Metal Products, Inc., Orange, Va. Line of "Mobilwalls" of various types, including those designed for office, laboratory, and industrial uses. One is a fire wall. Styles include flush, semi-flush, and paneled. Heights range from 3′ 6″ and 5′ 6″ (railings) to 10′ 2″, with fillers available to ceilings. Widths vary from

12″ to 60″. Partitions are set on floor stampings and (where required) engaged in ceiling runners. Provisions for standard wiring. Features include doors with adjustable frames, accessory parts for double glazing, special windows, access doors, matching exterior wall covering, sound control features, window embrasures, radiator enclosures, etc.

Weber Showcase & Fixture Co., Inc., 5700 *Avalon Blvd., Los Angeles.* Line of "Weberwall" partitions made of steel or wood. Steel partitions of flush, semi-flush, and paneled types, in variety of sizes and designs, some with glass, some without. Most are of ceiling-height or cornice type. Designed to absorb sound. Provisions for electrical wiring. Wood partitions range from low-cost woods to Honduras mahogany, are of many different sizes and designs, some solid, some glazed.

White Mfg. Co., Hyde Park, Boston, Mass. Line of "Unit-Panels," some of flush plywood on wood core, some of flush asbestos on wood core. Heights range from 40 in. to ceiling heights. Widths from 24 to 48 in. Partitions have concealed metal fastenings. May be wired with flexible cable. Soundproofing available. Optional features include various types of pass and information windows; units are sufficiently rigid to permit installation of blackboards and the like.

Wright Mfg. Co., P. O. Box 6567, Houston, Tex.

IASA to meet in Chicago

The Insurance Accounting and Statistical Association will conduct its 33rd conference at the Palmer House, Chicago, May 23-25. The conference, in addition to covering various insurance procedures and techniques, will include several sessions on electronic computers and data processing equipment.

Wharton school conference planned for June

The 1955 Wharton School Refresher Conference on work simplification and measurement in the office and factory is scheduled to be held at the Wharton School, University of Pennsylvania, Philadelphia, from June 20th through July first. A special one-week pre-conference session on basic tools and techniques will be given from June 13th through the 17th.

Among the subjects to be covered are the place of cost reduction and cost control in management, the relationship of all management functions on the cost reduction team, integrating the various functions into a well-rounded group, and an evaluation of top management's stake in industrial engineering and office systems activity.

Other discussions will deal with various aspects of simplifying practices, developing work measurements, and obtaining employee acceptance.

The director of the conference is V. Donald Schoeller.

Accounting studies planned for young executives

"The Uses of Accounting in Managerial Control" is the title of a special summer program to be given at the Massachusetts Institute of Technology, June 14-July 1.

According to MIT Professor Ernest H. Huntress, "the program is designed for young executives who have recently assumed or are about to assume general management responsibilities and who have not had formal training or substantial experience in accounting."

MIT also announced plans for a two-week program on the "Fundamentals of Inventory Management," to be given June 20-July 1.

American Ribbon & Carbon bought by E. B. Brewster

The American Ribbon & Carbon Co., Rochester, N. Y., one of the oldest inked ribbon and carbon paper companies in this country, has been purchased by E. B. Brewster, also of Rochester. Mr. Brewster is president of the Rochester Ribbon & Carbon Co., Inc., and of Labelon Tape Co., Inc., both of Rochester.

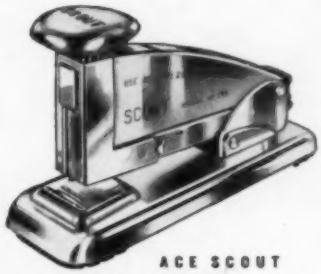
Mr. Brewster will serve as president and treasurer of the newly acquired company, and Gardner N. Soule will be vice president in charge of sales. Mrs. Lillian Damon, former president of the American Ribbon & Carbon Co., and William A. Dechau, former production manager, will also serve in the new management.

The three companies, although they will be managed jointly, will retain separate corporate entities.

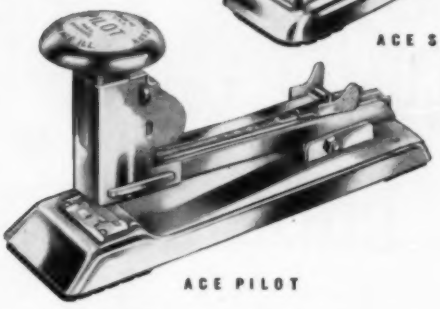
German plant for Marchant

Marchant Calculators, Inc., of Oakland, Calif., has announced plans to begin manufacturing operations in West Germany later this year.

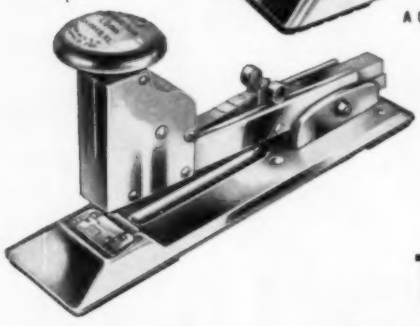
You'll Be Happier With ACE Stapling Equipment . .



ACE SCOUT



ACE PILOT



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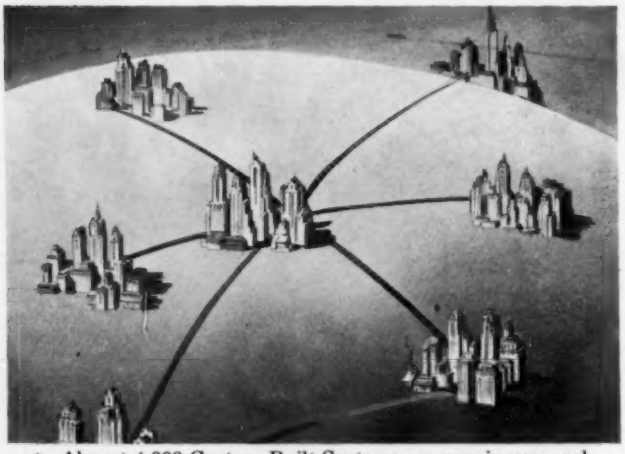
What you should know about WESTERN UNION Private Wire Services!

1 Installed at each end of your private telegraph line, teleprinters send and receive messages. Anyone who can use a typewriter can operate a teleprinter, the heart of nearly every system, which permits instantaneous contact between points where telegraphic connection is desired.



2 Almost 4,000 Custom-Built Systems are now in use, each engineered to the specific communication needs of a specific company. You may require a system covering thousands of miles, connecting branch offices, plants and warehouses all over the country . . .

3 . . . or your needs may be simpler—requiring only a two-station system to connect a plant with your main office, or to link two divisions in neighboring cities or states. Either way, chances are you can save time and money with a Western Union Private Wire System.

4 In large systems, message traffic is channeled through this ingenious electronic "control center." Pushbutton operation permits one attendant to handle and re-route a tremendous volume of traffic per day . . . directly to any and all points in the system.

5 Medium-size systems use a semi-automatic routing center. Incoming messages, on tape, are picked up by the attendant who notes the destination and places the tape in the correct sending slot. A push of a button speeds the message on its way.

6 In addition to handling general messages, all types of business paper work such as orders, tabulations, accounting records, inventory forms, may be sent over your private telegraph system . . . greatly increasing its value to company operation.

If you are spending more than $75 per month for communications,

both oral and written, between any two points, ask yourself these questions:

- **Would instantaneous, continuous telegraphic contact between any two or more points—branch offices, warehouses, plants, etc.—add to the speed, ease and efficiency of present operations?**
- **Will a permanent, printed record of all incoming and outgoing communications make for a more orderly handling of the company's business?**
- **Has today's trend toward "decentralization" of business multiplied our own communications problems?**
- **Should we take advantage of *volume* purchasing of communications, as we do in most other business items?**

If your answer to any of these questions is "yes," it will pay you to investigate the efficiency and economy of a Western Union Private Wire System. For more complete information on what such a system can do for your business, wire collect for our new booklet covering all types and applications of private wire communications.

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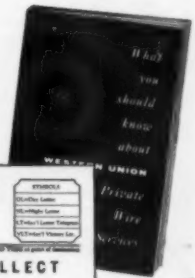

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Books and Pamphlets

Accounting Theory

The *Handbook of Modern Accounting Theory* has been published by Prentice-Hall, Inc., 70 Fifth Ave., New York. This 620-page volume, edited by Morton Backer of West Virginia University, contains extensive studies on many aspects of accounting theory by more than twenty authorities in the field.

It was written, according to its preface, "to familiarize its readers with the major areas of controversy in accounting and to evaluate the relative merits of related proposals which have received or deserve serious consideration . . . .

"The authors have not hesitated to express their personal viewpoints toward contentious subjects but have carefully refrained from ignoring or underemphasizing contrary beliefs. Frequent references have also been made to the pronouncements of the American Institute of Accountants and the American Accounting Association. The book is thus intended to be provocative and stimulating as well as informative."

The nature of the book is indicated by the following chapter headings:

"Accounting Theory and the Accounting Profession" (introduction to the volume), by Robert E. Witschey, member of the Executive Committee, American Institute of Accountants.

"The Historical Background of Accounting," by Maurice E. Peloubet, past vice president and treasurer, AIA.

"Economics and Accounting," by John T. Wheeler, associate professor, University of Minnesota.

"Law and Accounting," by Bernard F. Magruder, consulting professor, Wayne University College of Law.

"The Influence of Administrative Agencies on Accounting," by William L. Werntz, past chief accountant, Securities and Exchange Commission.

"Professional Ethics in Accounting," by John L. Carey, executive director, AIA.

"The Education and Training of Accountants," by Oswald Nielsen, professor of accounting, Stanford University.

"The Development of Accounting Principles by Accounting Societies," by E. L. Kohler, past president, American Accounting Association.

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"The Thundering Herd"

Keep the coffee-break in your control

Stampede on the 25th floor! It's a fact that in many office buildings, elevator traffic reaches its peak at 10 A.M., the time for the "coffee-break". Rudd-Melikian's Kwik-Kafé system puts an end to this widespread loss of time and efficiency.

Employees take their "coffee-break" right in the office or plant, without leaving their work area, and lost time is cut to the minimum.

Rudd-Melikian, Inc. is the leader in the field of "coffee-break" control, installing and servicing dependable dispensing machines that supply delicious Kwik-Kafé coffee and leading soft drinks *at no cost to management.*

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Books and Pamphlets
(*Continued*)

"Determination and Measurement of Business Income by Accountants," by Morton Backer, associate professor of accounting, West Virginia University, and editor of the book.

"Fluctuating Price Levels in Relation to Accounts," by Edward B. Wilcox, past president, AIA.

"Cost and Value Concepts," by Lawrence J. Benninger, professor of accounting, University of Missouri.

"Valuations of Inventories," by S. Paul Garner, head of the Department of Accounting, University of Alabama.

"Asset Cost and Expiration," by Carl T. Devine, professor of accounting, University of Southern California.

"Corporate Stock Equities," by William J. Vatter, professor of accounting, University of Chicago School of Business.

"Trends in Preservation of Financial Statements and Reports," by C. A. Moyer, head of the Department of Accountancy, University of Illinois College of Commerce.

"The Development of Auditing Standards," by Edward A. Kracke, member of the Executive Committee, AIA.

"The Responsibilities of the Internal Auditor," by Earle H. Cunningham, general auditor, General Motors Corp.

"Accounting and Management," by Howard C. Greer, past president, AAA.

"The Accountant's Part in Labor Relations," by Ernest Dale, research consultant, American Management Association.

"Trends in Governmental Accounting," by Robert Phillip Hackett, Associate Dean of Commerce, University of Illinois, Chicago Undergraduate Division.

"The Future of Accounting," by Maurice H. Stans, past vice president, AIA.

The Handbook is priced at $9.25.

Sales Reports and Forms

Report Forms and Procedures for Successful Sales Administration is the title of a new publication of the American Management Association, 330 W. 42nd St., New York. This special report contains six papers:

(1) "The Role of Reporting in Sales Management," by Ray R. Eppert, executive vice president, Burroughs Corp.

(2) "Getting Full Information from the Field," by C. M. Dick, Jr., vice president in charge of sales, A. B. Dick Co.

(3) "Sorting the Facts: The Chief Sales Executive's Responsibility," by John L. McConchie, director of sales, The Kendall Co.

(4) "Information from Other Departments," by Robert L. Gibson, general manager, Chemical and Metallurgical Division, General Electric Co.

(5) "Lines of Communication with Top Management," by William H. Frank, president, BullDog Electric Products Co.

(6) "Reporting Back to the Sales Force," by R. H. Whidden, vice president in charge of sales, W. A. Sheaffer Pen Co.

Numerous types of forms which may be used to provide concise and effective presentation of sales data are illustrated.

Office Reference Book

The Office Encyclopedia, in pocket book form, is a paper-backed 500-page guide to office procedures, including correct English usage, proper office practice, and basic business procedures. It contains such subjects as instructions on the operation of office machines, mail handling, bookkeeping, filing, ad-

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For ideas worth keeping—reports, letters, agreements, surveys and permanent or semi-permanent records—use paper made from rags.

Neenah Boxed Typewriter Papers are available with from 25% to 100% rag content to give you whatever degree of permanence you require.

They are tub-sized and air-dried for a more luxurious typing surface. They are brilliantly blue-white for added prestige. Ask your stationer for Neenah, the finest in boxed typewriter papers.

Neenah is America's most complete line of fine business papers.

Old Council Tree Bond	100% rag
Success Bond	75% rag
Chieftain Bond	50% rag
Neenah Bond	25% rag
Old Council Tree Onionskin	100% rag
Success Onionskin	75% rag
Neenah Onionskin	25% rag

Finishes—bond and cockle
Weights—substance 7, 9, 13, 16, 20 and 24
Sizes—8½ x 11; 8½ x 13; 8½ x 14
Neenah is also available ream wrapped.

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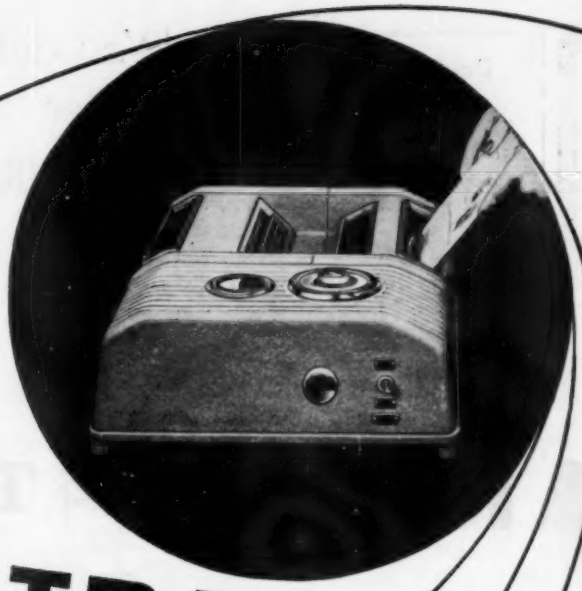
Neenah, Wisconsin

Neenah TYPEWRITER PAPERS



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Uses for Transcopy are almost unlimited in all types of businesses, services and organizations.

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Automatic typing of personalized letters by Auto-typist equipment is the economical solution. Just how automatic typing can be used to cut costs and increase returns is contained in the 16-page booklet, "How to Use the Auto-typist." Present applications by business, industry and institutions are listed along with comments on the equipment. Fill out the coupon to receive your copy.

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Books and Pamphlets
(Continued)

vertising and publicity, postal rates and regulations, insurance, mathematical tables, legal and financial terms, and others.

The book is edited by N. H. and S. K. Mager. It is published by Pocket Books, Inc., 630 Fifth Ave., New York, and is priced at 50 cents.

New Shorthand Manual

The second edition of the *Gregg Shorthand Manual Simplified* has recently been published by the McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York.

The word outlines are those used in the simplified Gregg system, which was introduced in the first edition in 1949. These have been retained without change, and new features have been added to make learning and teaching easier.

The book is by John Robert Gregg, Louis A. Leslie, and Charles E. Zoubek. It is priced at $3.25.

Training Computer Personnel

Proceedings of the First Conference on Training Personnel for the Computing Machine Field is now offered by the Wayne University Press, Detroit, at a price of $5. The volume contains the majority of the papers presented at the conference, which was held at the university last June 22 and 23. It is edited by Arvid W. Jacobson, associate professor of mathematics and director of the Computation Laboratory at Wayne.

The general subjects covered are manpower requirements in the computer field, educational programs, the influence of automatic computers on technical and general education, and cooperative efforts for training and research.

Bases for Industrial Relations

The Industrial Relations Section of the California Institute of Technology, Pasadena, Calif., has published a study called *Bases For Industrial Relations*, by Waldo E. Fisher, professor of industrial relations at the University of Pennsylvania's Wharton School of Finance and Commerce.

The scope and conclusions of the essay are indicated by the following quotation from its summarizing final section:

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"Events in recent decades have brought about important changes in the thinking of the American people. The Federal government has discarded its 'hands off policy' and has assumed the responsibility of protecting its citizens against social and industrial risks which are beyond their control. It has guaranteed them the right to join unions and bargain collectively. Today about one out of four persons in the labor force and one out of three employees who might be organized by labor unions are enrolled in the labor movement.

"During these years the dignity of the individual, personal freedom, and democratic values and processes have been given increased attention. Powerful economic groups, each motivated by self-interest and seeking to achieve the personal goals of its members, augment conflicts of interests and loss of harmony, and sometimes interfere with the effective functioning of our economic system. Notwithstanding these changes, past dogmas and habits linger on in the field of labor and industrial relations. Attitudes, policies, and procedures have failed to keep abreast of new concepts and new conditions.

"In formulating a broader approach to personnel and labor issues, the insights and findings of the social sciences should be utilized. Such action is desirable because people—either as individuals or members of groups—are both the focal point in labor and industrial relations and the raw material of these sciences. We are over-specialized and over-departmentalized. No single area of specialization can deal effectively with the complex problems relating to human motivation and behavior. The pressing need today is for interdisciplinary thinking that will pool the knowledge and experience of other disciplines and stimulate the use of research methods and techniques best suited to analyze and, where possible, to solve the many problems created by the process of working and living together."

Bases For Industrial Relations is offered by the California Institute of Technology at a price of $1.50.

AMA schedules management conference in New York

A "Top Management Conference" has been scheduled to be held at the Hotel Roosevelt, New York, May 23-25, by the General Management Division of the American Management Association.

The conference will cover such subjects as "Progress and Prospects in Automatic Production," "Developments in Computer Applications to Management Problems," "Technological Development and Management," and a panel discussion entitled, "Defining Horizons for Company Planning."

Also scheduled are discussions of "Long-Range Planning: New Dimensions and Established Principles," "Organization for Industrial Change," "The Impact of Automatic Production on the Company Organization," "Setting a Philosophy and Program for Growth," "Growth by Acquisition," "What It Takes to Make Diversification Work," "Budgeting Capital Expenditures," "Developing Patterns in Management," and "Widening the Scope of Management Development."

The AMA has its headquarters at 330 W. 42nd St., New York.

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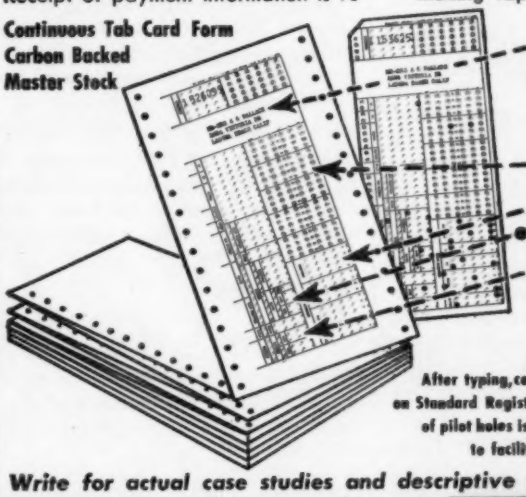

After typing, complete tab card masters are die cut on Standard Register Die Cutter. At same time a field of pilot holes is punched in the payment record area to facilitate use of hand punches at the file.

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PARTS AND SERVICE FROM COAST TO COAST

Please send a copy of "30 Ways to Get the Most from Your Duplicator."

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People in the News

THE GRAY MFG. CO. has announced that Brigadier General *Frank L. Howley,* USA (Ret.), has been named a director of the company. General Howley, who retired from the Army in 1949, is vice chancellor of New York University.

In his new function, he joins another retired Army officer, Major General *Kirke D. Lawton,* who was named a director of the company late last fall.

THE FRIDEN CALCULATING Machine Co., Inc., of San Leandro, Calif., elected the following officers at its recent stockholders' meeting: *Walter S. Johnson,* president; *John M. Lund,* chairman of the executive committee; *Stanley M. Friden, Philip R. Samwell, Larry B. Taylor,* and *Dunstan S. Gross,* vice presidents; *Charles T. Gruenhagen,* secretary-treasurer; *Harry M. Billings,* assistant secretary; and *Victor C. Berds,* assistant treasurer.

Messrs. Johnson, Lund, Friden, Samwell, Taylor, Gross, and Gruenhagen were also chosen to serve as directors. Other directors elected were Jack B. Lewis and Alberta Hawthorne.

JOHN M. KUHN has been promoted to the post of vice president in charge of sales of the General Binding Corp., Chicago. Mr. Kuhn has been with the company since 1951; previously, he was in the Chicago sales department of the Dow Chemical Co.

It was also announced that *Roy W. Newman,* who has been chief accountant for the company, has moved up to the position of vice president and treasurer. He served as senior auditor for Arthur Andersen & Co. before joining the company in 1952.

STANLEY G. HAYNES has been appointed controller of Acme Carbon & Ribbon Co., Ltd., of Toronto, a wholly-owned subsidiary of Burroughs Corp.

EDWARD T. FREEL has been named a vice president of Leahy & Co., consultants on paperwork, records storage, and records management. Previously he had been sales manager of the Microfilm Div., Remington Rand Inc. He has also been active on the Paperwork Management Task Force on the Com-

For easier, better, photocopying

...a new Dri-Stat System

Here is a new photocopy system so simple, adaptable and compact it can be used as standard office equipment.

Designed by Peerless to operate with famous "Bright-Light" papers, it gives perfect black-and-white copies of any original in any bright office light; even when fluorescents are used.

Anyone can operate this new photocopy system. Controls are simple, settings are not critical. A new rheostat gives stepless control of light density. An oversized fluorescent tube spreads the light evenly, eliminates darkened areas at the edges of even the widest copies. And anyone can maintain the new Dri-Stat All normal maintenance can be done without tools.

Get additional information on this successful and practical photocopy system that will operate in four or five times as much light as other photo transfer processes. It will reduce your clerical costs and increase your office efficiency. Write to Peerless Photo Products, Inc., Shoreham, Long Island, New York, or call your nearest Peerless distributor.

PEERLESS

DRI-STAT

mission on Organization of the Executive Branch of the Government, known popularly as the Hoover Commission.

INTERNATIONAL BUSINESS Machines Corp. has announced several appointments:

Dr. Cuthbert C. Hurd has been named director of electronic data processing machines, in which post he will coordinate all of the company's engineering, manufacturing, and product planning activities in the electronic data processing field. Dr. Hurd has been director of IBM's applied science division since its establishment in 1949.

Jay W. Schnackel has been promoted to the post of vice president in charge of manufacturing. Mr. Schnackel, who joined IBM in 1937, previously was general manager of the company's Endicott, N. Y., plant. He is succeeded in that post by *Arthur L. Becker,* former assistant general manager.

Thomas E. Clemmons, who has been associated with the company since 1927, has been named sales manager of the electronic data processing machines division.

FOLGER FELLOWES has become president of the Bankers Box Co., Chicago. He has been with the company for 21 years. He succeeds his father, *H. L. Fellowes,* who will remain active in the company as chairman of the board, a newly created position.

CLARENCE B. SAMPAIR has been elected to the board of directors of the Minnesota Mining & Mfg. Co., filling the vacancy created by the death of *Richard P. Carlton* in June, 1953. Mr. Sampair is vice president in charge of production and industrial relations; he is also president of the company's international division.

CHARLES W. SCHREIBER, vice president in charge of sales, Yawman & Erbe Mfg. Co., has been named executive vice president. Mr. Schreiber has been with Y & E for more than 25 years. At the same time, *Merland G. Hamm* was promoted to the post of assistant secretary and assistant treasurer.

JOSEPH W. VAN CAMP has been named comptroller of the Parker Pen Co., Janesville, Ohio. He moves to this post from that of budget director.

The rather tactless approach used by the salesman above is apt to earn him multiple abrasions and contusions, for the harried executive is obviously in no mood for levity.

Yet the executive, burdened with the menial task of hand-signing checks while more important matters pile up, could profit from what the salesman has to say.

The salesman is there to talk about Cummins Automatic Check Signers, which could whip through all the checks in minutes — and register the executive's perfect signature on every check.

A Cummins Check Signer could save the executive hours of chore time, give him more time to do the really important job of verifying the amounts and authenticity of the checks.

A Cummins Check Signer could let him delegate the signing task to a lesser paid employe, yet maintain absolute control over his signature through 4-way lock and key safety. In fact, a free insurance policy is given with each machine as added proof that there's nothing safer than a Cummins-signed check.

For full information on this *businesslike* way of signing checks, mail coupon below.

Cummins 270 Check Signer automatically signs, dates, protects up to 450 checks a minute. Small advertisement or company slogan can be printed simultaneously.

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Cummins

Cummins Business Machines sales and service offices in principal cities

CUMMINS BUSINESS MACHINES
Division of Cummins-Chicago Corp.
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Please send me full information on Cummins Check Signers

Name .....

Name of Business .....

Address of Business .....

City ..... State .....

NEW DESK Expaditer

Reg. U.S. Pat. Off.

INCREASES OFFICE EFFICIENCY

Amazing one unit memo organizer "never forgets to remember."

The single **Expaditer** unit replaces all miscellaneous paper cluttering up the desk, organizes important memos and notes in one place. Speeds work through! Saves Time! Unit holds 400 slit-apart memos (perforated at top), up to half year's use. Discourages wasting costly stationery and forms for scribbled notes. Pays for itself in efficient cost-cutting operation. Put an **Expaditer** on every employee's desk and see for yourself!

Only $8.10 per doz. (minimum order)
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SATISFACTION ASSURED

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Goodyear Printing & Stationery Co.
270 Lafayette St., Dept. FM-5, N. Y. 12, N. Y.

Oravisual All Purpose Portable Easel

Replaces blackboard. Uses large, modern paper pads. This versatile all aluminum easel is also equipped for large cardboard charts or turnover charts. Strong yet light in weight. Folds in a jiffy for easy portability or storage. Thousands in use by big business—everywhere. Other models available.

Write for free 16-page illustrated catalog.

ORAVISUAL COMPANY, INC.

Factory and General Office
Box 609, Station A St. Petersburg 2, Fla.

People in the News

(Continued)

THE OLD TOWN CORP. has announced the election of *George A. Rentschler* and *Dante E. Broggi* as directors. Mr. Rentschler is board chairman of Baldwin-Lima-Hamilton Corp., manufacturers of locomotives and heavy machinery; Mr. Broggi is president of the Neptune Meter Co.

THE WOOD OFFICE Furniture Institute recently elected the following officers: president (re-elected), *Sterling Lord*, vice president of the Leopold Co.; vice president (re-elected), *Raphael Blessinger*, of the Jasper Desk Co.; treasurer, *Ralph F. Schneider*, of the Indiana Chair Co. *V. L. Gutzweiler*, of the Hoosier Desk Co., was re-elected as a member of the executive committee, and *T. R. Pitts*, of the Myrtle Desk Co., was also elected to the executive committee.

GEORGE W. OLIVER, formerly vice president and general manager of Thomas Collators, Inc., New York, has been named president of the company. Mr. Oliver has been with the company since 1949, when he joined it as sales promotion manager. He is also the immediate past president of the Office Executives Association, New York Chapter of the National Office Management Association.

HAROLD S. MINER has been named a director of the Gray Mfg. Co., New York. Mr. Miner is a vice president of the Manufacturers Trust Co., of New York; he is in charge of its spectacular new branch at Fifth Avenue and 43rd St. In addition, Mr. Miner is treasurer and a director of CARE.

RAYMOND F. COPES has resigned as general manager of the Controllers' Congress of the National Retail Dry Goods Association to accept a position as controller of Meier & Frank Co., Inc., Portland, Oregon. Previously he had been with J. N. Adam & Co., Buffalo; Butler Brothers, Chicago, and the Firestone Tire & Rubber Co. He is also chairman of the sub-committee Task Force on Paperwork of the Hoover Commission, a member of the faculty of New York University, and director of research of the Controllers' Congress Research Committee.

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THE **COFFIELD EVERLASTING** *Interchangeable* **ORGANIZATION CHART**

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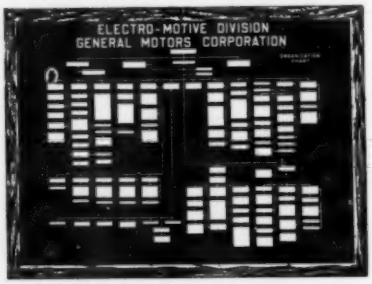
A typist, a typewriter and typing paper are all you need to keep your chart up to date. It's that simple!



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at 100 TIMES
NORMAL SPEED
to assure
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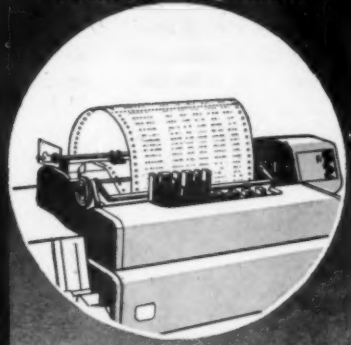

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Which type meets your needs best?

- **LITHOSTRIP** the most efficient continuous form ever devised
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TEST their accuracy on your own machines . . .

Write today for free samples!

AMERICAN *Lithofold Corporation*
500 BITTNER ST. ST. LOUIS 15, MO.

People in the News
(Continued)

THE A. B. DICK CO. of Canada, Ltd., has announced three executive changes:

Angus E. Wood has been elected executive vice president and also a director.

A. B. Dick III, formerly president, will be chairman of the board of directors. He is also president of A. B. Dick Co., Chicago, the parent company.

C. Mathews Dick, Jr., moves up to the presidency. He serves also as vice president in charge of sales for the parent organization.

Association News

THE RECORDS Management Association of New York held its monthly dinner meeting on March 14th at 3 West 51st St. The evening's speaker was Arvid Friberg, Administrative Assistant, Long Island Lighting Co., whose subject was "The Establishment of a Records Management Program at the Long Island Lighting Co."

Meeting again on April 11th, the Association heard a discussion of "How Records Management Has Paid Off for American Radiator and Standard Corporation," by Robert Gallant, Manager of Procedural Planning for that company.

THE OFFICE MANAGEMENT Association of Chicago held its March luncheon meeting on the 31st at the Morrison Hotel. Prof. Robert L. Peterson, of the University of Illinois spoke on the retirement age and opportunities to utilize the services of older workers.

THE OFFICE EXECUTIVES Association of New York met for a luncheon meeting on April 6th at the Masonic Club. The featured speaker was Miss Bertha Weeks, Director, Records Controls, Inc., whose subject was "Planning for Record Programs of the Future."

At the dinner meeting, held on April 20th at the Hotel Belmont Plaza, Leta J. Stroben, of the Records Planning Div., Shaw Walker Co., and George Tisdale, secretary, Commercial Union-Ocean Insurance Group, discussed "The Elements of Employee Training."

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☐ **You'll seldom have to dictate** another letter which, for the most part, quotes one you have received.

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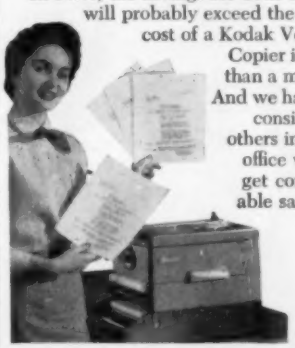

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Kodak

New efficiency—

(*From page* 25)

In order to avoid interference with the day-to-day work of the company, it was decided to convert each floor as a unit, before moving on to the next. Also, every department within the company was analyzed on the basis of its operations and internal functionings, and to determine the other departments with which it had the greatest amount of business.

Some floors were set aside for temporary use by overflow personnel from floors undergoing the modernization process, and the work was begun.

As each floor was renovated according to the plans drawn by Wedemeyer and Hecker, architects for the conversion, the ceiling was lowered to provide space for air conditioning ducts and installation of recessed lighting fixtures. Simultaneously, a modern wiring system was installed throughout the entire building, and new electric, telephone and office machine outlets were provided in floors and columns to eliminate the open wiring that had been so dangerous a fixture in the building before its conversion.

The floors, as each underwent conversion, were covered with asphalt tiles, except in local areas where a high degree of sound absorbtion was necessary. In these cork tile floors were used. Walls on all floors were repainted in colors carefully selected to give cheerful working conditions, and also to aid in giving proper working light.

And—pleasantest surprise of all in this highly successful conversion—it was found that by rearranging departments on floors so that each department was in close horizontal communication with the other departments with which it had the greatest number of transactions, it was possible to reduce the amount of inter-floor traffic to the point where the building's four elevators were perfectly adequate. Instead of installing additional elevators, it was only necessary to modernize the existing ones.

Nor were the intangible but important employee morale factors that have increased so much in importance since 1914 forgotten in the conversion process. The twelfth floor in the new "old" building has been devoted to employee training, lunchroom, and lounge facilities. Folding doors between the various areas of the twelfth floor make it possible to convert several of the separate facilities into an area where all company personnel can meet at one time whenever that is necessary.

General American—and its 620 employees — feels their conversion has proved a company can have all the advantages of a new building—without sacrificing the benefits of a first-class location in the heart of the city.

Work measurement—

(*From page* 20)

viding Units Processed by Total Hours, we arrive at a standard figure for the number of items that should be processed per hour, or, alternatively, the number of hours that should be given to processing a given number of items, which is sometimes a more effective way of orienting the figure. This becomes our performance standard.

It can be objected right away, of course, that this standard doesn't prove too much, since, if we have an ineffi-

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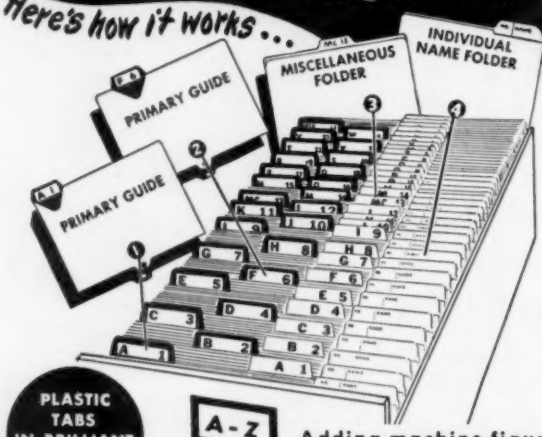

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cient department to start with, setting up standards based on that department's performance over a six-month period actually only perpetuates a below-average performance in the form of a standard.

This is where the experience and, to a certain degree, the intuition, of the methods planner responsible for setting up the work measurement program must come into play. By defining jobs within departments, and by using in our figures only the time devoted by clerks to jobs of measurable output, while excluding all the time they may have to spend on "non-countable" and non-routine duties, we have at the very beginning of the process established the most tangible and concrete basis possible for our figures. Now, the figures we are recording deal with repetitive jobs that are the same as other repetitive jobs done in other offices in other companies, and the experience of the methods specialists working with the figures for department performance will tell him if a department's performance of these standard, routine, strictly defined clerical jobs is seriously out of line with average standards for the same jobs elsewhere. Small performance discrepancies may be explainable—variations in the forms or procedures used in different companies may make the production output—the standard—in one a little lower or a little higher than in another, but again the methods planner's own knowledge of the variation in procedure gives him a guide as to whether the discrepancy in total figures is reasonable or unreasonable.

It may also be expected that individual slack workers within the area covered by the counting center may drive the average down, but the element of tighter control implied in the work measurement program will generally prevent this from happening. The supervisor will hear about it if her department is seriously out of line on its production standards in the countable jobs with similar departments in other companies, and she knows that specific figures are being compiled and analyzed for her department each week. She will see that the department knows about it, and from that point on, the other workers in the de-

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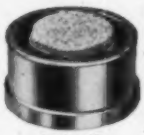
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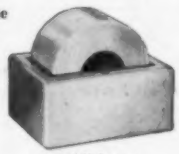
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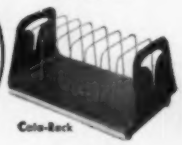
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partment will help the supervisors press slack workers to begin pulling up their average since they will recognize that the whole department may suffer if production doesn't improve.

In the last analysis, if there should be one or two particularly suspect workers individual output records can be kept for them alone. This will stimulate them to improve performance, since there's no way they can fake their records—their time is accounted for on the daily work sheets almost to the minute. Suppose a clerk takes fifteen minutes to chat with the girl at the next desk instead of working. She can of course forget to put this fifteen minutes down, and conveniently list it under some job. But she has simply added more time to the period apparently devoted to that particular job, and has not increased output correspondingly, which makes her time-output ratio figures look so much the worse in comparison with her fellows'.

The only flaw can come with the hyper-efficient worker who also takes fifteen minutes out to chat, and then records the fifteen minutes as working time. If her speed is much higher than the average, no discrepancy will appear in her figures, but if she's hyper-efficient, we're still getting average or slightly better than average performance from her.

Our individual standards determined by the six-month recording of figures (and individual discrepancies caused by sub-standard employees can be caught early in the survey), we use these standards as the reckoning point for department performance. Let's assume that we have arrived at a standard, over our six-month averaging process, of 6.7 hours for processing of 1,000 orders. We now use this basic figure to evaluate department performance—on a percentage of efficiency basis—for all future processing of those orders.

But again, in order to make our figures fair, and to cover the variations in the flow of clerical work, we evaluate our actual hours worked against "Earned Hours"—the standard—on an eight-week moving average. That is, figures, while compiled and compared each week, are averaged with the figures for the immediately preceding seven weeks, to level variations.

Thus, our figures for a given sequence of weeks—assuming a standard of 6.7 hours per 1,000 items—might run something like this:

Week ending July 7: 5,870 units processed, during a total time for all clerks of 40.9 hours. At our determined standard of 6.7 hours for processing 1,000 items, the actual earned hours represented by the number of units processed would only amount to 39.3—less than the actual hours worked. Thus, our department for that particular week would have operated at only 96 per cent effectiveness on that particular job.

Week ending July 14: 7,350 units processed, during a total time for all clerks of 50.2 hours. At our standard, only 49.2 hours should have been taken for this number of items, so the department, while improving slightly, is still below par, operating at 98 per cent effectiveness.

Week ending July 21: 7,714 units processed, during a total working time of 50.7 hours. Now the ratio begins to change. According to the standard, that number of items should have been processed in 51.7 "Earned Hours." Since actual hours worked are less

The OFFICE VALET
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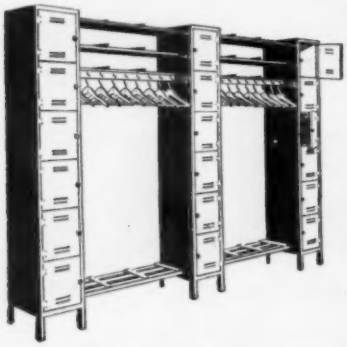

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than the hours "earned" by that number of items at 100 per cent effectiveness, we now have the department working at a better than standard rate—102 per cent effectiveness.

The two basic figures on which percentage of effectiveness is based—actual hours worked on every job category and total output, determining "Earned Hours"—are averaged every week for the immediately preceding eight-week period to give us a fair picture of department effectiveness against the previously determined norm.

Eight-week moving average percentages for each countable job within the department are in turn transferred to a master record on which percentage effectiveness of all clerical departments within the company can be compared directly.

This, in essence, is the basis of a simple and effective work measurement plan adapted to the particular requirements and handicaps of the office. It is not perfect, and it is not going to be as rigid or as exact as a plan can be in a factory where there is much less variety of duties for the average worker, and where there are fewer duties of a non-repetitive nature.

Unusual tasks excepted

The non-countable duties, the individual variations which cannot be subjected to work measurement *do* make up a large part of the office worker's job. But we have guarded against this discrepancy by not trying to evaluate these unusual and non-repetitive jobs, and by excepting the time workers spend on them from our figures. Thus, if department output is very low on a countable job during any one week because its clerks have been put on a special job not in their regular routine, our figures will not be thrown out of line because only the time spent on their regular duties during that week is evaluated against their regular output that week. Similarly, if two clerks are out sick during the week and department output drops correspondingly, the percentage effectiveness figures will still be valid because time figures are compiled for the department as a whole, and a smaller total of actual hours worked will be recorded against the output.

The one drawback in the system lies in the nature of office work itself. Now, what are its advantages?

First of all, it is simple and economical to operate. Keeping individual counts of worker output is difficult, time-consuming, and interrupts the flow of work for the clerk who must keep her own records. The simple time records are the easiest thing in the world for her to record, however. Output records require part-time services by one person at the counting point established.

But there are other advantages in keeping work output totals for the group rather than for individuals. This policy introduces the element of internal policing by the group to keep sub-standard workers up to par, since the department as a whole is subject to management criticism if its percentage of effectiveness is consistently lower than the other departments'. This factor operates even more strongly, of course, if an incentive pay plan, based on each department's percentage effectiveness above the standard, is put into effect.

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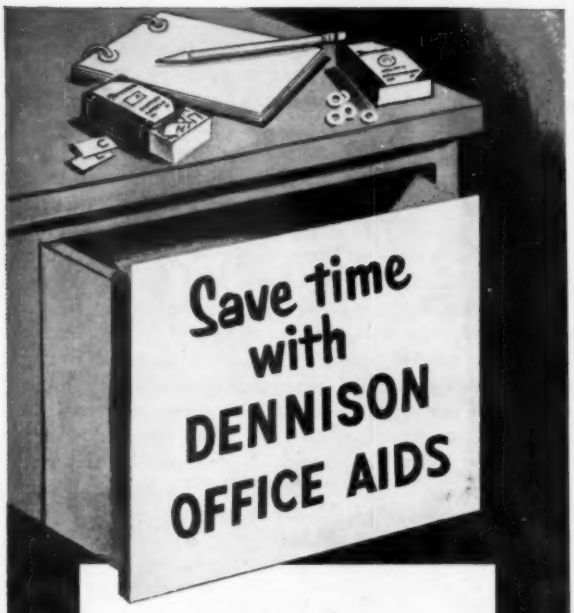

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We usually advise that a company delay final decision on an incentive pay plan until after its work measurement program has been in effect for some time, and that never under any circumstances should the workers be informed an incentive pay plan is being considered at the time work measurement studies are first begun. The reason for the latter advice is obvious. Since standards are being set on the work output averages achieved by departments over a six-month period it will be a temptation to every worker in the department to insure that the six-month output is as low as possible. Knowing that eventually an incentive pay plan will be started, she will reason department performance can then register startling gains over the artificially low standard.

This is a must—concealment of management consideration of an incentive pay plan throughout the period when standards are being established. As to the general validity of incentive pay after a work measurement program is in effect, that is a matter for individual management judgment. There can be no hard and fast rules about it. If management finds that its departments, for whatever reasons, are generally maintaining a work output substantially higher than the determined standard, it may very well decide that an incentive plan would represent a bookkeeping and out-of-pocket expense that is not justified.

However, if department output hovers right around the standard, falling slightly below it one week, forging slightly above it the next, and management feels definite benefits would result from increased production, an incentive pay scheme has great merit, and is relatively simple to operate on the work output measurement plan outlined.

Divide benefits

We generally advise management, if an incentive pay plan is decided on, to divide the sum equal to the effectiveness increase equally between the company and the employees. In other words, if any one department registers a work output ten per cent higher than standard during the eight-week period used as a base, the departmental employees included in the plan would receive a five per cent premium over their regular weekly wage. In order to promote better cooperation between groups in large departments handling a multitude of jobs, and having several counting points for work output, it is sometimes wise to subdivide the premium payment even further, paying ⅓ of the ½ gain on the basis of group performance, ⅔ on the basis of over-all department performance.

Thus, if a given department registering an over-all gain of 10 per cent over standard for its eight-week average had two groups with separate counting points, and separate output records being maintained, and Group A showed a gain of 12 per cent for the period, Group B, a gain of 8 per cent, comparable premium figures for each group would be:

	% Gain	½ Gain	⅓ Gain	⅔ Overall	Total
Group A....	12	6	2	3.3	5.3
Group B....	8	4	1.3	3.3	4.6
Department .	10	5			

Each worker in Group A would thus receive 5.3 per cent of her base weekly earnings as a premium; each worker in Group B, 4.6 per cent of her weekly rate as a premium.

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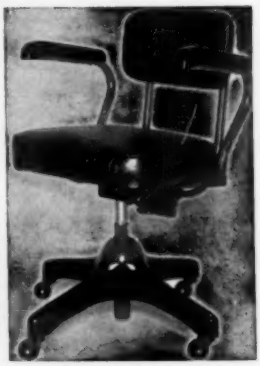

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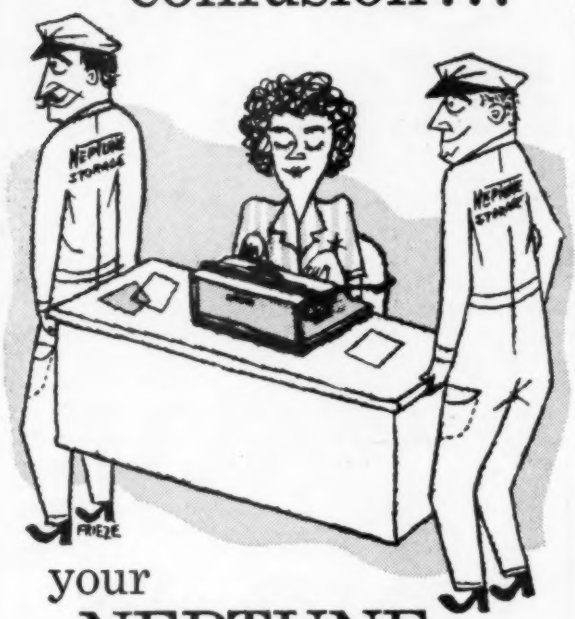

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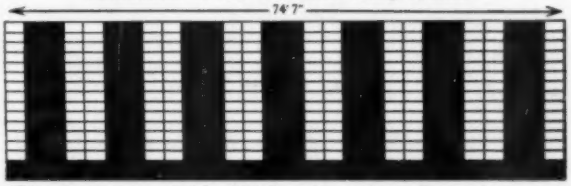

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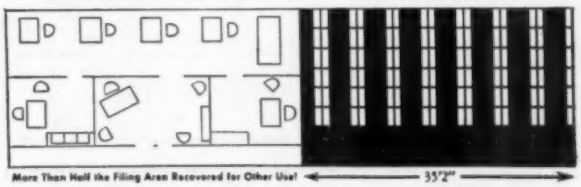

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The benefits, since they are paid on an eight-week moving average—an average of work effectiveness for the eight weeks immediately preceding each pay date—would be paid at the same time as the regular wages.

Some of the benefits of the work measurement plan, either with or without the incentive pay corollary, are obvious—the foremost being of course management's ability to locate production areas operating below par with a fairly high degree of accuracy. But there are other benefits coming from this increase in management control that are not so apparent at first glance.

One of these is the increased knowledge given department heads of their manning requirements for various jobs within their departments at peak periods. If the department head knows what production on a given job should be with a given number of workers devoting a given number of hours to that job, and if he knows that the number of units to be processed in any future period will be far larger than that particular number of workers can efficiently handle, he doesn't have to guess how many additional clerks will be needed. He can, knowing how much additional volume to expect, predict with fair accuracy, after reference to the standard for that job, exactly how many additional workers will be needed and for how long.

Two-way regulation

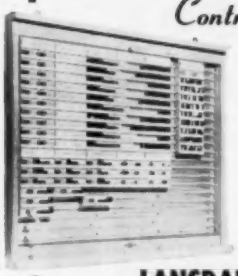
The reverse is equally true. If the department head knows that the work load on any given job is going to be considerably less than the usual he can estimate—again quite accurately—how many clerks it is safe to take away from that particular work, and assign to another job. In this phase, too, the internal policing implicit in the system gives it an even higher degree of self-regulation, since each supervisor within the department, instead of trying to hold on to her clerks through slack periods and asking for additional help in peak periods, will try to get rid of clerks she doesn't need in slack periods. The reason is plain; if she doesn't, the percentage effectiveness figures of her particular group will fall off sharply in the slack periods, since workers will be doing less work than usual while taking the same number of hours usually required for normal volume.

Thus, control of idle time becomes almost automatic under the system, since all supervisory levels, and to a degree, the workers themselves, will realize that idle time will penalize them in management's eyes. The self-regulating factors operate even more effectively under an inventive pay system, of course, but they are significant in the work measurement system alone.

This system, both with and without an incentive pay plan in addition, has been installed by our firm in several different companies, and it has achieved the results outlined in all of them. It is not as tight nor as effective as work measurement plans that have been devised for some factory areas, granted, but the simple fact is that no system can be designed for office work that is 100 percent effective, and much more elaborate plans than this can accomplish no more—except in the negative sense of raising management costs.

The plan outlined is not perfect, but it is considerably better than no work measurement plan at all, and it has the added benefits of simplicity, economy, and automatic self-perpetuation, since it is to the worker's own advantage, in the last analysis, to keep production at or above the standard.

PLANOMATIC Control



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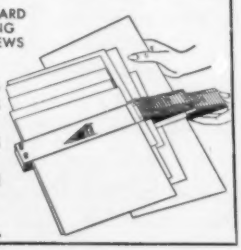

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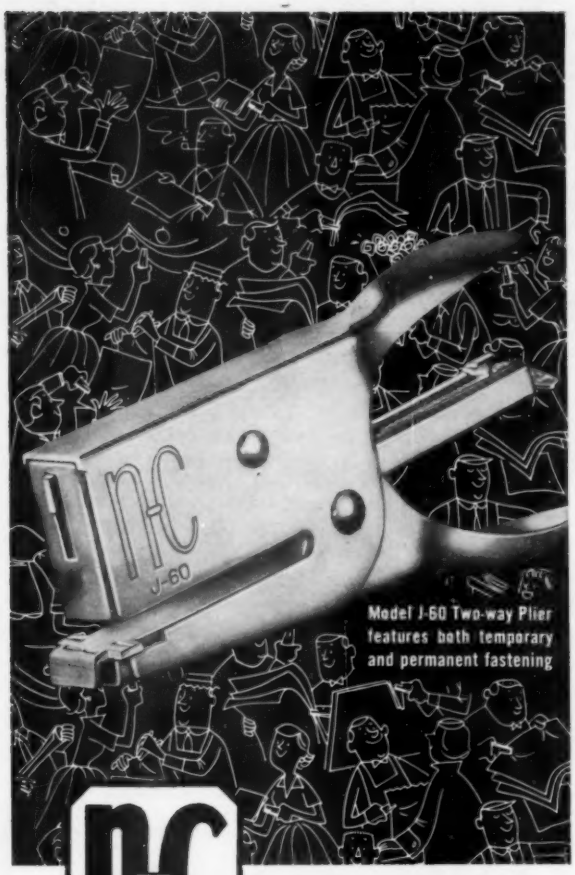

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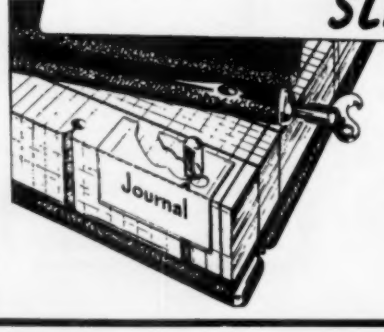

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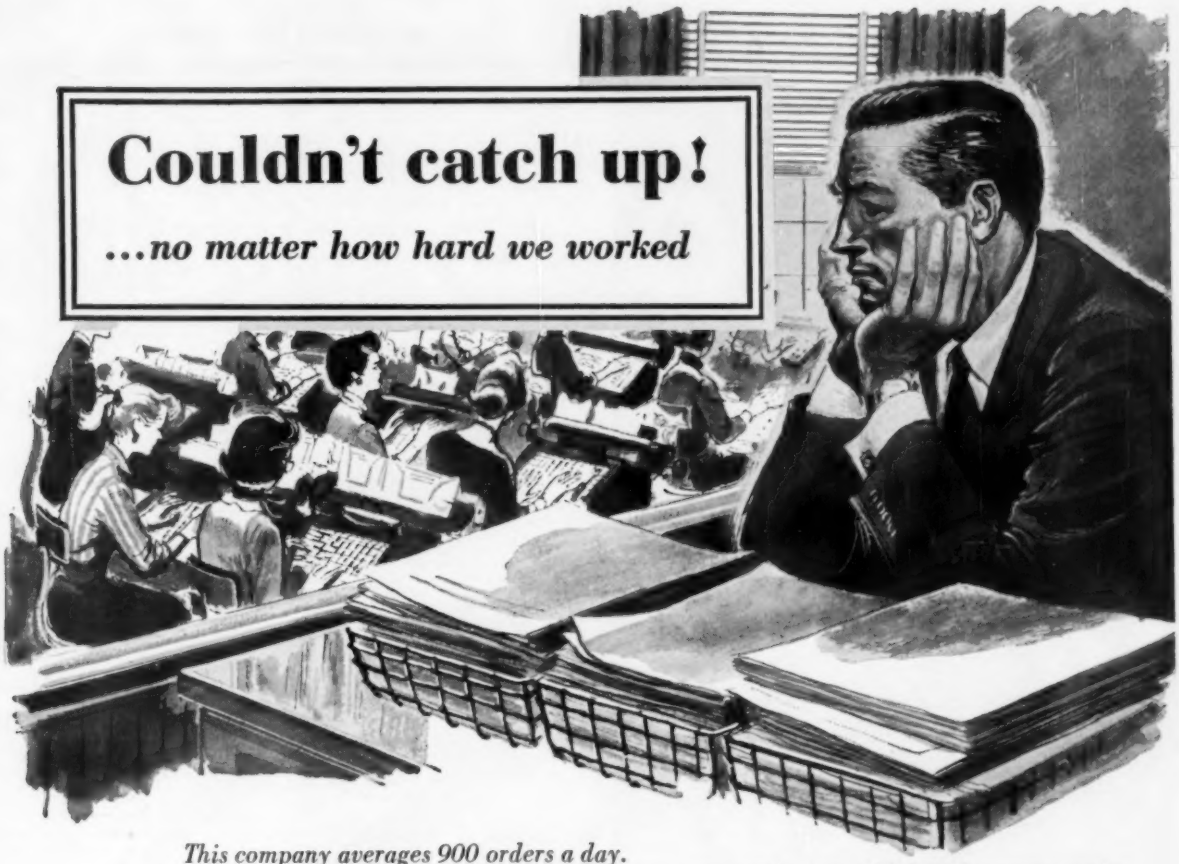

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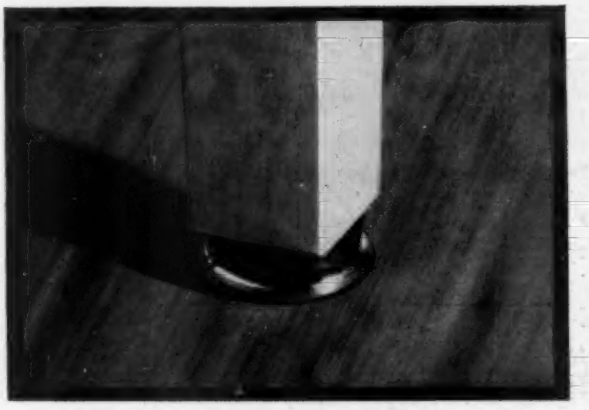

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